



Richland County Land Bank

Court House, Lower Level One
50 Park Avenue East
Mansfield, Ohio 44902
419-774-5623

Narrative Information Sheet

1. Applicant Identification

Richland County Land Reutilization Corporation
50 Park Avenue East
Mansfield, Ohio 44902

2. Funding Requested

2.a. Grant Type

Single Site Cleanup

2.b.i. Federal Funds Requested

\$411,000

2.b.ii Cost Share Waiver

No Cost Share Waiver Requested.

2.c. Contamination

Hazardous Substances

3. Location

Swan Cleaners is located in the City of Mansfield, County of Richland, State of Ohio

4. Property Information

Swan Cleaners
165 Park Avenue West, Mansfield, Ohio 44902
Permanent Parcel #027-01-096-13-000 and 027-01-096-12-000

5. Contacts

5.a. Project Director

Amy Hamrick, Richland County Land Reutilization Corporation Manager
419-774-5623
ahamrick@richlandcountyoh.us
50 Park Avenue East, Mansfield, Ohio 44902

5.b. Chief Executive/Highest Ranking Elected Official

Bart Hamilton, Chairman of the Board of Directors / Richland County Treasurer
419-774-5624
bhamilton@richlandcountyoh.us
50 Park Avenue East, Mansfield, Ohio 44902

6. Population

Population of Mansfield Ohio is 46,720 ((www.census.gov) population estimates 2017)

7. Other Factors Checklist

Other Factors	Page #
Community population is 10,000 or less.	n/a
The applicant is, or will assist, a federally recognized Indian tribe or United States territory.	n/a
The proposed brownfield site(s) is impacted by mine-scarred land.	n/a
Secured firm leveraging commitment ties directly to the project and will facilitate completion of the project/redevelopment; secured resource is identified in the Narrative and substantiated in the attached documentation.	3
The proposed site(s) is adjacent to a body of water (i.e., the border of the site(s) is contiguous or partially contiguous to the body of water, or would be contiguous or partially contiguous with a body of water but for a street, road, or other public thoroughfare separating them).	n/a
The proposed site(s) is in a federally designated flood plain.	n/a
The redevelopment of the proposed cleanup site(s) will facilitate renewable energy from wind, solar, or geothermal energy; or any energy efficiency improvement projects.	n/a

8. Letter from the State or Tribal Environmental Authority

Attached.



Mike DeWine, Governor
Jon Husted, Lt. Governor
Laurie A. Stevenson, Director

January 17, 2019

U.S. Environmental Protection
Agency, Region 5
ATTN: Matt Didier
77 West Jackson Boulevard
Mail Code SB-5J
Chicago, IL 60604-3507

Re: **General Correspondence**
Brownfield
Richland County

Subject: Richland County Land Reutilization Corporation Cleanup Grant Proposal

Dear Mr. Didier:

I am pleased to offer Ohio Environmental Protection Agency's (Ohio EPA) support for the Richland County Land Reutilization Corporation (Land Bank) Cleanup Grant Proposal. The Land Bank is applying for a grant totaling \$500,000 to remediate contamination at the Swan Cleaners site.

Swan Cleaners is the site of a former commercial dry-cleaning business that was acquired by the Land Bank. The Land Bank utilized the Ohio EPA Targeted Brownfield Assessment Program to perform Phase I and Phase II Environmental Site Assessments at the site. Swan Cleaners is located in Mansfield, in an area that will become "The Imagination District." This district includes two adjacent facilities to the Swan Cleaners site, the Theater/Renaissance Education Center and the Little Buckeye Children's Museum. Once the Swan Cleaners site is remediated, the Little Buckeye Museum will purchase the site with plans to renovate the building, which will include retail shops, an apartment, storage areas, and a dance studio. The community will benefit from the U.S. EPA grant funds by allowing Richland County Land Bank to return a brownfield site to productive use, reducing blight, increasing property values, supporting community goals, and bringing jobs and tourists to the area.

We look forward to working with the Richland County Land Reutilization Corporation and U.S. EPA on this project. If you have any questions, please do not hesitate to contact me at 614-644-2295 or via e-mail at Lisa.Shook@epa.ohio.gov.

Sincerely,

Lisa Shook, Manager
VAP, Enforcement, Remediation & Brownfields Section
Ohio Environmental Protection Agency

ec: Amy Hamrick, Richland County Land Reutilization Corporation
Archie Lunsey, Ohio EPA, DERR/NWDO

Narrative/Ranking Criteria for Cleanup Grants (100 pts.)

1 Project Area Description and Plans for Revitalization (30 pts.)

1.a Target Area and Brownfields (8 pts.)

1.a.i Background and Description of Target Area (3 pts.)

“Some have described north central Ohio (City of Mansfield) as the belt buckle of the Rust Belt, old, worn-out, useless, forgotten.” Richland Source article *“Rising from Rust project”* Larry Phillips, Managing Editor Feb 4, 2018.

Our city, the City of Mansfield, Ohio with a population of approximately 47,000, is situated in north central Ohio; midway between Columbus and Cleveland. We are a proud community with a great history of industrial development starting in the 1920s, led by home appliances and stove manufacturing giants - Westinghouse Electric Corporation and Tappan Stove Company. Westinghouse had become the city's largest employer, with over 8,000 employees. However, like many cities in the rust belt, Mansfield experienced a large decline in its manufacturing and retail sectors beginning with the Steel Recession of the 1970s. Local industrial heavy weights like Mansfield Tire & Rubber Company, Dominion Electric, Hoover Plastics, National Seating, Wickes Lumber, Crane Plumbing, Neer Manufacturing, Smurfit – Stone Container, Ohio Brass Company, Westinghouse, and Tappan along with retail providers such as Sears, JC Penny's, Montgomery Wards, Value City Furniture, Odd Lots, and Reeds were either bought-out, relocated or closed. One of the last to go - General Motors, Mansfield/Ontario stamping plant filed for bankruptcy protection and closed their doors in June 2010.

The Richland County Land Bank, City of Mansfield, and community understands that heavy industry will not come back, therefore we are reinventing ourselves with creative economic solutions. Our economic solution to revitalization of the decimated downtown area is the creation of the **“The Imagination District”**. It will completely transform Census Tract 31, our target brownfield area – by far the hardest hit tract in the County – into a center for arts, entertainment, and education. The two jewels of the new Imagination District are (1) the Renaissance Theatre, a historic theatre, which has served as the focal point for local entertainment of national talent since 1927 and completely restored in 1980, and (2) the soon to be relocated, expanded, and enhanced Little Buckeye Children's Museum. This District is the result of the brain power and hard work of two insightful local cultural organizations forming a newly created non-profit collaboration that understands the economic importance of drawing visitors locally and more importantly, visitors from all over the state and beyond. The Site for this clean-up grant project is integral to the expansion and operations of both the Renaissance Theatre and the Little Children's Museum.

1.a.ii Description of the Brownfield Site(s) (5 pts.)

Swan Cleaners, our Brownfield cleanup grant Site, is located in Census Tract 31, an IRS designated “Opportunity Zone”, and in the center of the “Imagination District”. It is located directly across the street from future Little Buckeye Children's Museum that is adjacent to the Renaissance Theatre. Redevelopment of the Site will be integral to the operations of both entities, providing ancillary services for the museum and theatre.

The Site is rectangular-shaped and comprised of approximately 0.36 acre of commercial land, and is currently a two-story, 15,424-square foot, former dry cleaner constructed in 1946. The structure of the building is solid, and rehabilitation and renovation would preserve and reuse the building for the “Imagination District”.

The Site operated as a dry cleaning facility from 1946 through 2014 when Swan Cleaners ceased operations, after which the Site was abandoned. Results of soil, soil vapor, and indoor air sampling by environmental consultants and Ohio EPA indicate that tetrachloroethene (PCE) and other volatile organic compounds are above the Ohio EPA Voluntary Action Program (VAP) levels for indoor air, sub-slab soil, and soil gas are exceeded for both residential and commercial land use. It appears the sources of impacts to the soil are from leaking lines, equipment, and poor PCE disposal practices over decades of operating a dry cleaning facility. With the confirmation that indoor air has been impacted, the extent of PCE impacts to the soil beneath the building is significant and occupancy of the building without remedy to the contamination is unsafe. Groundwater was not encountered, and not expected to be impacted due to its depth.

1.b Revitalization of the Target Area (12 pts.)

1.b.i Redevelopment Strategy and Alignment with Revitalization Plans (7 pts.)

Picture this unique redevelopment strategy: two non-profit organizations working collaboratively to establish a cultural arts and education corridor, “The Imagination District”, which will drive the city’s downtown economic engine. The Little Buckeye Children’s Museum and the Renaissance Performing Arts Association are jointly pursuing the development along a two block corridor of Park Avenue West, to further their respective missions to meet the needs of the community, and establish an attractive, creative and financially viable anchor from a series of neglected, derelict buildings. A visual eyesore near the heart of downtown Mansfield will be reclaimed as a cultural and educational hub. This \$6,000,000 development will be funded entirely through private contributions at no cost to residents attracting those who live and work in Mansfield as well as tourists, and provide support not only for the anchor organizations but also for area restaurants, hotels, and retail businesses.

Little Buckeye Children’s Museum’s new site will significantly expand its already profitable operations (1 of 5 profitable children’s museums out of 400 in Ohio), and the former Swan Cleaners is a key property that will provide the needed storage capacity and accommodate demand that is estimated to be double, even triple, the existing museum’s annual capacity of local and regional schools and others in a 70 mile radius of Mansfield. The existing building on the Swan Cleaners site will have 1 or 2 retail shops in the front portion of the first floor and an apartment at the rear (to be used by guest performers). Approximately 5,000 square feet on the second floor will be used for storage and set building for both organizations. The balance of the second floor will become a dance studio for the new Renaissance Education Center.

According to “**Mansfield Downtown and Miracle Mile Strategic Redevelopment Plan**”, http://docs.wixstatic.com/ugd/a34e2f_c1e5f323e55a460aa2548231f5e4c6f3.pdf from March 2003. **Goal 2: Dramatically improve the appearance and safety perception of downtown Mansfield.** *Consumers demand cleanliness, orderliness and an attractive and safe environment in which to shop and dine*. The same could be said of visitors looking for entertainment. Leaving a vacant abandoned contaminated structure, Swan Cleaners, amidst redevelopment does not give the Little Buckeye Children’s Museum or Renaissance Theatre goer a sense of safety. Downtown Mansfield “*continues to have its share of both violent and petty crime*”, it is a proven fact that vacancy promotes crime. The City of Mansfield is so focused on fixing the downtown they recently passed a \$5.00 per license plate fee to generate approximately \$200,000 annually that will be restricted for use on downtown streetscape improvements (City of Mansfield recently appointed a board to determine where and how these funds are to be spent.)

1.b.ii Outcomes and Benefits of Redevelopment Strategy (5 pts.)

“The Imagination District exemplifies the collaboration our community needs to move forward on its revitalization. The work and investment by the Renaissance Theatre and the Little Buckeye Museum is the next step in not only their growth but the community’s growth.” Bradford Groves - President Richland County Foundation.” Imagination District Case for Support”.

The Imagination District, in the heart of the historically disastrous Census Tract 31 located in downtown Mansfield has the capabilities to generate the following economic and social outcomes with assistance for cleanup of the former Swan Cleaners Site:

- Regularly scheduled programming will introduce more than 20,000 children each year to the Renaissance Performing Arts Association, fostering future audiences for theatrical performances.
- In 2019, a 5-year partnership between the Renaissance and the Pioneer Career & Technology Center will create a program at the Education Center located across the street from the Site. It will provide income for the Renaissance Performing Arts Association, and workforce development opportunities for students in construction, sound design, and exhibit fabrication.
- Job opportunities will be available for as many as 15 full time and 25 part time staff within the Imagination District producing much needed tax revenues, and the total anticipated economic impact from tourism is anticipated to be \$7.7 million by 2021-2022.
- The Little Buckeye Museum would receive additional revenues from the rental retail spaces in the former Swan Cleaners building.
- Swan Cleaners currently has 26 solar panels, installed February 2013 (total cost \$165,000), which makes this structure an energy efficient option for Little Buckeye Children’s Museum.
- Reuse of structure will create needed retail and educational space for the community.

1.c Strategy for Leveraging Resources (10 pts.)

1.c.i Resources Needed for Site Reuse (7 pts.)

This cleanup project will cost \$496,000 to complete as detailed in Section 3. The grant funds will provide \$411,000, and the Land Bank is committed to providing the 20%+ match (\$85,000). To restore and renovate the building to be used by the Little Buckeye Children’s Museum after cleanup, Fred Bolls, Executive Director of the Museum has budgeted and committed \$75,000 - \$100,000 towards renovation. (See Little Buckeye letter). In addition, as part of the Imagination District, the Land Bank committed the following: 2016 accepted 166 Park Avenue West as a deed-in-lieu of Tax Foreclose and transferred to Renaissance Theatre who rehabbed property as Theatre 166 and Education Center (to be rehabbed as part of the Imagination District \$6 million revitalization plan); and 2018 removed from forfeited property list and transferred to Little Buckeye Children’s Museum the 175 West Third Street property (demolished in 2015 using City of Mansfield (PRIDE) Parks Recreation Illumination Demolition Emergency services funds (tax levy) \$14,995), and 177 West Third Street property (demolished in 2013 using Moving Ohio Forward funds \$12,710) to be used as a future play-scape (funded as part of the Imagination District \$6 million revitalization plan). At this time, Swan Cleaners is not part of the \$6 million revitalization plan due to the fact it is unknown when the Land Bank can get the funds to mitigate the contamination of site.

1.c.ii Use of Existing Infrastructure (3 pts.)

The structurally sound building will be renovated and reused as well as the existing sewer and utility lines eliminating demolition cost. Swan Cleaners is located on a main thoroughfare with direct access to Richland County Transit and existing parking will be re-utilized. There will

be no infrastructure construction costs, no noise, nuisance dust, and storm-water runoff from construction of a new building.

In addition, another strategy we will employ to promote environmentally-conscience redevelopment of this brownfield site is reusing and recycling the equipment and materials located within the structure. Office equipment, steam presses, industrial rotation clothes rack, stainless steel washer and other dry cleaning equipment will be offered for sale. We plan to recycle other materials such as scrap metals and other revenue-generating materials that would offset cleanup costs. Remaining clothing left in the building will be donated to local non-profits.

2 Community Need and Community Engagement (20 pts.)

2.a Community Need (12 pts.)

2.a.i The Community's Need for Funding (3 pts.)

The City, County and Land Bank do not have the resources to assist, let alone pay for the cleanup of a property of this magnitude. According to “*City of Mansfield Ohio Comprehensive Annual Financial Report for the Year Ending December 31, 2017*” in 2008 the Richland County Auditor accessed City of Mansfield total real property values to be \$685,397,888, in 2017 property values dropped 16% to \$573,343,550. The reduced tax base and depressed property values over the last ten years have caused a significant burden on municipal services and resources. The City of Mansfield was placed on fiscal watch by the Ohio's Auditor in December of 2009, citing substantial deficit balances in structural operating general funds with a deficit of \$3.8 million. This lasted for four years when the City of Mansfield was finally declared out of fiscal emergency in July of 2014.

The target brownfield area, Census Tract 31, the heart of the City of Mansfield, was hit hardest of all. This area contains the County Courthouse, many municipal buildings, small local business, and residences. New development in Census Tract 31 is scarce with many structures being built prior to 1939 and in poor condition. This grant will help complete the transformation of the Imagination District, which will directly improve the health and welfare of this area.

2.a.ii Threats to Sensitive Populations (9 pts.)

2.a.ii.1 Health or Welfare of Sensitive Populations (3 pts.)

The welfare of the community in Census Tract 31 is disturbing. As seen in the table below, the target brownfield area has some staggering demographics including a poverty rate of 48.2%, and 68.9% of children living in poverty. This is almost triple that of the national and Ohio average for each demographic. (1).

	Census Tract 31	Mansfield City	Richland County	Ohio	National
Population	1,991	46,720	121,533	11,614,373	316,127,513
Poverty Rate	48.2%	23.8%	15.6%	15.8%	15.5%
Unemployment Rate	not available	4.5%	4.3%	4.6%	3.9%
Average Wkly Income	\$367.66	\$753.00	\$760.00	\$1,005.00	\$1,152.00
Percent Minority	41.2%	27.1%	13.2%	20%	37.8%
Disability	33.1%	20.1%	15.9%	14%	12.6%
Children in Poverty	68.9%	32.3%	22.5%	22%	19%
Food Stamps	55.1%	26.4%	16.6%	13%	14.4%

Information for these five areas were found at: <https://factfinder.census.gov>, www.bls.gov, and

[https://www.census.gov/acs/www/data/data-tables-and-tools/narrative-profiles/2017/.](https://www.census.gov/acs/www/data/data-tables-and-tools/narrative-profiles/2017/)

Remediation of the Site, with its redevelopment as well as the redevelopment of the Imagination District, will benefit everyone within the Census Tract, the majority of which are low income and/or poverty stricken. Within walking distance of Swan Cleaners, there are 2 schools, several daycare facilities, and an independent / assisted living / adult day care center. There is potential for these individuals as well as homeless persons and others residents of the nearby neighborhoods to be exposed to the harmful chemicals at the site. Remediation and redevelopment of the site has the potential to reduce health risks and potential exposure to sensitive populations and others in the area and bring in local markets creating healthier food options. The area will also be made safer with additional educational resources within walking distance.

2.a.ii.2 Greater Than Normal Incidence of Disease and Adverse Health Conditions (3 pts.)

“In 2016, 13% of Richland County adults had been diagnosed with cancer at some time in their life, according to the *Richland County Community Health Assessment for 2016*. As you can see from the chart below, Richland County resident’s health related issues are well above the state and national averages. While specific statistics were not found for our target area, it only makes sense to believe the health statistics of the hardest hit residents would be much worse.

	Richland County	Ohio	National
Individuals Without Health Insurance	15%	8%	11%
Overweight / Obese	73%	67%	66%
Asthma	18%	14%	14%
Quality of life limited in some way because of physical, mental or emotional problem	29%	21%	21%

<https://www.hcno.org/wp-content/uploads/2017/09/Richland-County-2016-Health-Assessment-with-Participant-Feedback-9-15-17.pdf>

2.a.ii.3 Economically Impoverished/Disproportionately Impacted Populations (3 pts.)

This is economically, impoverished, population will benefit from new employment opportunities created directly and indirectly by Imagination District. The average Mansfield resident makes \$252 less than state average and \$399 less than national average per week. As if that isn’t bad enough, the average resident living in Census Tract 31 makes about half of what the average Mansfield resident makes. This sector of the population are subject to violent crimes, high minority and disability percentages with only 47% educational attainment. To put this into a better perspective, our target area is considered over two times more dangerous than both Ohio and National levels.

	Census Tract 31	Richland County	Ohio	National
Violent Crime	80.1%	20%	25.6%	31.1%

(Incidences per 100,000 residents) <https://www.bestplaces.net/crime/state/ohio>

This extremely poor community will benefit from having a safer neighborhood, new employment and learning opportunities within walking distance from their homes. Little Buckeye Children's Museum offers their visitors who receive Ohio Directions Card (EBT) and Active Duty Military Personnel a reduced admission price of just \$1.00.

IV.E.2.b Community Engagement (8 pts.)

IV.E.2.b.i Community Involvement (5 pts.)

List of Project Partners

Partner Name	Point of contact (name, email & phone)	Specific role in the project
Little Buckeye Children's Museum	Fred Boll / 419-522-2332 f.boll@littlebuckeye.org	Purchaser - to redevelop for Imagination District
Renaissance Performing Arts Association	Mike Miller / 419-522-2726 miller@mansfieldtickets.com	Little Buckeye's partner in Imagination District
Downtown Mansfield Inc.	Jennifer Kime / 419-522-0099 jenniferk@downtownmansfield.com	Help get information out to community members and facilitate community engagement.
Ohio EPA	Dan Tjoelker / 614-644-3750 Daniel.Tjoelker@epa.ohio.gov	Provided (TBA program) phase 1 and 2 and "ABCA"
Richland County Public Health	Joe Harrod / 419-774-4520 jharrod@richlandcountyoh.us	Health Monitoring

E.2.b.ii Incorporating Community Input (3 pts.)

We are excited about our brownfield cleanup project. Our goals are to help the community understand brownfield project objectives, demonstrate how the process directly improves future of community and downtown revitalization, and get them involved.

Our proven successful community engagement program includes board members and or staff regularly attending community watch/improvement meetings where the discussion usually centers on vacant and abandoned properties and how the Land Bank can address these issues. During the initial Swan Cleaners public meeting, held January 16, 2019, we talked about the purpose and objectives of the cleanup project. Public comments and recommendations include; (1) leaving the solar panels and clothes racks for future use, (2) phone calls from garment owners asking to retrieve personal property (3) discussion with Ace Auto, the neighboring property, about parking concerns. After grant award, we will again hold a public kickoff meeting to unveil the Swan Cleaners cleanup project, discuss the scope of work, and the schedule for implementation and completion. Special public meetings will be advertised in the Mansfield News Journal, the local newspaper of general circulation, to keep the community apprised of progress through our website.

Thereafter, Land Bank Board of Directors meets twice monthly, it is at these regularly scheduled public Board meetings Swan Cleaner progress reports will be given to keep the communication momentum going, and the public will have an opportunity for comments and/or ask questions. Our meetings are very informal and well attended by community leaders as well as the press. Members and concerned citizens sit around a table discussing projects, concerns and successes. The informality of the meetings promotes input from the community. Meetings and publications will be conducted in English, translators will be provided if requested.

3 Task Descriptions, Cost Estimates, and Measuring Progress (35 pts.)

3.a Proposed Cleanup Plan (8 pts.)

The proposed cleanup plans involves the following: (1) removal and proper disposal of approximately 1,900 tons of soil contaminated with chlorinated solvents from the back of the building; (2) abatement of asbestos containing materials (ACM) from the building (ACM found in fire doors, gaskets, floor tiles, floor tile mastic, window caulk, and wall board) and installation and operation of a sub-slab depressurization/vapor mitigation system in the Site building to mitigate the chlorinated VOCs present in Site soil and sub-slab vapor.

This cleanup alternative would remove chlorinated VOCs in soil source area from behind the Site building, mitigate the vapor intrusion risk to indoor air for the Site building, and would meet the remediation objectives and Ohio EPA Voluntary Action Program (VAP) standards. Human health and environmental risks posed by the chlorinated VOCs would be mitigated and allow for continued use of the existing Site building. In addition, removing the identified ACM from the Site building would meet the remediation objectives, and the asbestos standards set by National Emission Standards for Hazardous Air Pollutants (NESHAP). Human health and environmental risks posed by the ACM would be mitigated and the impediments to Site redevelopment would be removed. This alternative has the greatest ability to meet the objectives of preparing the Site building for the planned reuse. During the cleanup activities, the air will be monitored by the environmental consultant to assure the public health and safety is maintained.

3.b Description of Tasks and Activities (12 pts.)

The proposed budget for this cleanup grant focuses on remediation of the former Swan Cleaners Site.

Task 1: Final ABCA/QAPP/Remediation Design Plans: \$34,000 - This task involves the environmental consultant (procured under Task 4) preparing documents for the cleanup project. First the consultant will finalize the draft Analysis of Brownfield Cleanup Alternatives (ABCA), **\$4,000**; then develop the Quality Assurance Project Plan (QAPP) for soil confirmation and air monitoring sampling associated with the cleanup for USEPA approval, **\$5,000**; and then develop the cleanup design plans and specifications (**\$25,000**). This work would be completed during the first and second quarters of the grant period.

Task 2: Site Clean Up and NFA Letter: \$425,000 – The Site Cleanup will involve the environmental specialty contractors conducting the following work: (1) abatement of asbestos containing materials, **\$55,000**, which is comprised of \$4,500 plans document, \$40,000 abatement, and \$10,500 for air monitoring and sampling; (2) removal and disposal of 1,900 tons of non-hazardous soil impacted with chlorinated solvents, **\$190,000**; and (3) installation of a vapor mitigation system to keep vapors in the remaining soils from entering the building, **\$120,000**, which includes \$10,000 for vapor mitigation oversight and documentation. In addition, the environmental consulting oversight (6 weeks), development of health and safety plans, air sampling and monitoring the health and safety of workers and public during the cleanup, and confirmation sampling of the soil is **\$35,000**. Cost share of \$85,000 from the Land Bank's internal funding, will be used as part this task to cover a portion of the cleanup cost. This work will be completed during the third and fourth quarters of the grant period.

The consultants and contractors will follow all the OSHA health and safety regulations, and the cleanup project will comply with all the standards of Ohio EPA's Voluntary Action Program. The environmental consultant will also prepare a No Further Action (NFA) letter for Ohio EPA's approval to issue a Covenant Not to Sue for the Site, the ultimate goal of this project (**\$25,000**). The NFA letter will be submitted during fifth quarter of the grant period.

Task 3: Community Outreach: \$14,000 - Funds for this task will be used to engage the community and provide community outreach and communication on the Land Bank's brownfield cleanup project to the community at 6 public meetings involving 1 kickoff event, 4 cleanup project status meetings including meetings at key points in the cleanup activities, and 1 final public meeting when the cleanup is complete and the beginning of the redevelopment occurs. The Land Bank will take the lead on community engagement activities. It is estimated that 200 staff hours at \$40/hour = **\$8,000**, plus **\$1,000** in meeting materials. In addition, it is estimated that the environmental consultant will cost **\$5,000** for the 6 public meetings. The role of the environmental consultant at the meetings will be to present data and answer any technical questions which arise. The meetings will be completed by the eighth quarter of the grant period.

Task 4: Programmatic Costs: \$23,000 - This task will include the Land Bank's initial solicitation and negotiation of the environmental consultant to oversee the cleanup project to be completed during the first quarter of the grant period. Subsequent solicitations will be to secure the remediation contractors, during the second and third quarters of the grant. (100 hours x \$40/hour = **\$4,000**). This task will also include Land Bank staff to lead meetings, review and evaluation of reports and document submittal for USEPA required reporting (i.e., quarterly and annual progress reports) (100 hours x \$40/hour = **\$4,000**), and oversight by the environmental consultant and remediation contractors for technical and quality assurance/quality control issues (300 hours x \$40/hour = **\$12,000**). Funds are also being requested for travel expenses (**\$3,000**) for two Land Bank employees to attend 1 national and 1 regional brownfield conference.

3.c Cost Estimates (10 pts.)

Budget Categories	Task 1	Task 2	Task 3	Task 4	Total
	Final ABCA, QAPP & Remediation Design Plans	Site Clean Up	Community Outreach	Programmatic Costs	
Personnel			\$8,000	\$20,000	\$28,000
Travel				\$3,000	\$3,000
Supplies			\$1,000		\$1,000
Contractual	\$34,000	\$340,000	\$5,000	\$0	\$379,000
Total Direct Costs	\$34,000	\$340,000	\$14,000	\$23,000	\$411,000
Indirect Costs	\$0	\$0	\$0	\$0	\$0
Total Fed Fund	\$34,000	\$340,000	\$14,000	\$23,000	\$411,000
Cost Share		\$85,000	\$0	\$0	\$85,000
TOTAL BUDGET	\$34,000	\$425,000	\$14,000	\$23,000	\$496,000

Outputs for this cleanup project involve preparation of one Final ABCA; final plans and specifications for the asbestos abatement; final plans and specifications for the vapor mitigation system; one No Further Action (NFA) letter to be submitted to Ohio EPA for issuance of a Covenant Not to Sue (when all cleanup standards have been met); and six community meetings

to disseminate information about the progress of the cleanup project and solicit input and respond to questions/comments regarding the cleanup. These outputs will be measured and tracked by the Land Bank, and reported out during quarterly brownfield meetings.

3.d Measuring Environmental Results (5 pts.)

The Land Bank will track and measure all the progress through ACRES, and provide the results of activities (outputs), milestones, and outcomes in its USEPA quarterly reports, ACRES and in its community meetings. Outputs to be measured will include the final ABCA, plans and specifications document for contractor bidding and completeness evaluated by the environmental consultant and Land Bank. The No Further Action Letter to Ohio EPA will be prepared when the clean-up standards for soil, asbestos, and indoor air concentrations have been monitored, evaluated, and confirmed during the clean-up activities. Periodically, the project manager will evaluate progress to make sure all activities are on track. This evaluation process will be used to direct the remediation contractor activities and progress by Land Bank and environmental consultant. The Land Bank will track the cleanup closely so that the Site can meet the Little Buckeye Museum opening schedule of 2021. This will ensure the outcomes of obtaining a covenant not to sue (CNS) from Ohio EPA, putting this one brownfield site back to beneficial reuse, and creating 3 to 5+ jobs on the Site as part of the Imagination District.

4 Programmatic Capability and Past Performance (15 pts.)

4.a Programmatic Capability (9 pts.)

4.a.i Organizational Structure (5 pts.)

The Richland County Land Bank will effectively manage all facets of the grant and oversee cleanup work with the combination of internal staff and outside consultants experienced in brownfield cleanup activities. The Land Bank is managed by Amy Hamrick who reports to and is supported by Land Bank Board of Directors. Ms. Hamrick will oversee and manage this grant - contractor selections, project schedules, task implementation, and USEPA brownfield grant reporting requirements. Ms. Hamrick has knowledge and experience for writing bid specifications and soliciting bids; coordination of public involvement, posting legal notices and working with web-based programs to post updates; tracking schedules for project needs; budgeting and draw-down submissions for payment; and oversight of contractors. Ms. Hamrick will be working with the developing partners of this former Swan Cleaner cleanup and redevelopment site, to be completed to meet the 2021 redevelopment project schedule for constructing the new Little Buckeye Children's Museum.

As the Manager of the Richland County Land Bank, she is currently the grant administrator and project manager for \$3,914,734 Neighborhood Initiative Program, and also manages the City of Mansfield contract for the Land Bank to provide services for City related day to day business and affairs of their \$750,000 per year City P.R.I.D.E. tax levy funded demolition program. Prior to managing the Land Bank Ms. Hamrick worked for City of Mansfield Community Development managing \$741,000 Moving Ohio Forward Grant.

The Land Bank CPA is Helen Brown with 38 year extensive experience in non-profit financial reporting. Ms. Brown will oversee and evaluate the grant budgets, and review the grant financial information on a monthly basis. Together they will prepare all required grant reports, update and submit the USEPA ACRES data.

Amanda Hike, full-time associate will provide Ms. Hamrick with administration and secondary support for grant activities associated with contractor contracts, schedules and communications; and assisting with communications with the environmental consultants and

contractors, and reporting requirement to USEPA and input of ACRES. With Ms. Hike there will be more than enough coverage to effectively manage this cleanup grant.

4.a.ii Acquiring Additional Resources (4 pts.)

The Land Bank has collaborated and worked closely with the following entities and departments to accomplish environmental assessment and cleanup projects, and has access to their resources: City of Mansfield (Departments: Codes and Permits, Economic Director, Community Development, and Engineering), the Richland County Development Group, and Richland County Health Department.

Quarterly, the Ohio Land Bank Association hosts meetings featuring sessions, including panel discussions and roundtable hosted experts in environmental, economic, historic, reutilization, beautification, and other topics associated with abandoned properties.

The Land Bank and City of Mansfield have significant experience hiring contractors and consultants. For this grant, we plan on hiring a contractor to perform the cleanup and serve as the QEP. The RFP for these services will require that the successful contractor have the necessary qualifications to perform cleanups that meet the grant terms and conditions. This contractor will be competed consistent with the terms and conditions of the grant.

4.b Past Performance and Accomplishments (6 pts.)

4.b.ii Not Received EPA Brownfields Grant but Received Other Fed/Non-Fed (6 pts.)

4.b.ii.1 Purpose and Accomplishments (3 pts.)

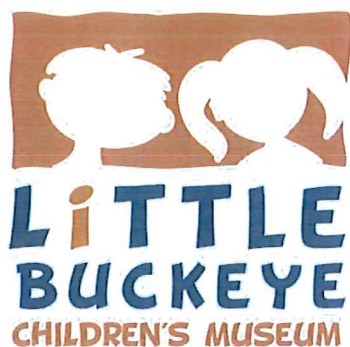
The Richland County Land Bank received the Neighborhood Initiative Program, an Ohio Hardest Hit Fund Project (NIP) August 2014. The goal of the Neighborhood Initiative Program (NIP) is to stabilize property values by removing vacant and blighted properties in an effort to prevent future foreclosures for existing homeowners. Richland County Land Bank's original NIP allotted funds grew (5 times its original amount) from \$773,750 to \$3,914,734. Additional funds were awarded based upon performance, spend down rates and property acquisition. Land Bank had received additional funds every time there was reallocations. To date, the Land Bank has completed 252 demolitions (51 were in the "target brownfield area") for a total cost of \$3,135,914.

The Outcome resulting from NIP funds is redevelopment of vacant and abandoned properties. Within Census Tract 31 the Land Bank successfully found individuals/companies to rehab 10 structures and a developer to build a multi-family structure on parcels where 3 houses had been demolished.

E.4.b.ii.2 Compliance with Grant Requirements (3 pts.)

NIP program award date was August 29, 2014 and ends December 31, 2019. We were required to submit a "narrative report each quarter that demonstrated the successes and challenges we experienced over the last quarter, and how the land bank is projecting to meet contractual requirements. To date, we are in compliance with the work plan, schedule and terms and conditions of the assistance agreement. All reporting has been timely and acceptable and all outcomes/outputs have been met or exceeded.

We must insure each property demolished using NIP funds qualifies, vacant and blighted, not historic, located in target area and is part of comprehensive strategy to stabilize home values; track all funds; monitor contractors; insure EPA compliance; prepare bid documents; and organize and monitor ongoing lawn care and/or property transfer to qualified end user.



notice. wonder.
question. play.



f.boll@littlebuckeye.org
44 W. 4th Street
Mansfield, OH 44902
419-522-2332
littlebuckeye.org

7 January 2019

Amy Hamrick
Richland County Land Reutilization Corporation
Court House, Lower Level 1
50 Park Avenue East
Mansfield, OH 44902

Dear Amy,

Little Buckeye Children's Museum is very excited about the potential the building located at 165 Park Avenue West presents. With our purchase of the building at 174 Park Avenue West, and with our planned expansion of Little Buckeye and creation of the Imagination District, the building at 165 Park Avenue West plays a key role in the growth of the museum and the development of the Imagination District.

The building at 165 Park Avenue West will offer Little Buckeye Children's Museum a multi-use facility with potential for two retail spaces in the front of the building, allowing for revenue-generating opportunities. The storage opportunities that could also be created in this building will be extremely necessary in the growth of Little Buckeye.

In collaboration with the Renaissance Theater, our partner in the Imagination District, we are also excited to create a dance studio on the upper floor with artists-in-residence housing in the back of the building. As such, this building represents an incredible opportunity for a fantastic multi-use facility that Little Buckeye Children's Museum is thrilled to develop into an asset of the Downtown Mansfield community and the highly-anticipated Imagination District.

Little Buckeye Children's Museum anticipates an investment of \$75,000-100,000 to begin the cleanup and basic renovations of the building at 165 Park Avenue West. Once exact plans are determined for the building and collaborative partners found for the retail spaces, a complete build-out and renovation of the property will be completed.

We are excited with the opportunity this building presents to Little Buckeye Children's Museum and the Downtown Mansfield community, and we believe it will be a tremendous asset to the growth and development of the new district. It will increase our flexibility and our ability to adapt to new situations and needs during this expansion. We appreciate all those who helped create this opportunity for Little Buckeye, and we are enthusiastic about seeing this project through to completion.

Sincerely,

Fred Boll
Executive Director

Threshold Criteria for Cleanup Grants

1 Applicant Eligibility

Richland County Land Reutilization Corporation
50 Park Avenue East, Mansfield, Ohio 44902
Public Charity Status 170(b)(1)(A)(vi)
Federal Income Tax under IRS code (IRC) Section 501(c)(3)

2 Previously Awarded Cleanup Grants

Richland County Land Reutilization Corporation affirms that Swan Cleaners located at 165 Park Avenue West, Mansfield, Ohio 44902 has not received funding from a previously awarded EPA Brownfields Cleanup Grant.

3 Site Ownership

Richland County Land Reutilization Corporation took ownership of Swan Cleaners located at 165 Park Avenue West, Mansfield, Ohio, 44902 from the Richland County Auditors Forfeited land list pursuant to Ohio Revised Code 5723.04 January 24, 2019.

4 Basic Site Information

Swan Cleaners
165 Park Avenue West, Mansfield, Ohio 44902
Owner: Richland County Land Reutilization Corporation

5 Status and History of Contamination at the Site

- a) The Swan Cleaners site (0.36 acres of commercial land) is contaminated with hazardous substances, primarily chlorinated solvents.
- b) The contamination resulted from the operations on site of a dry cleaners during the period 1946 to 2014. The site ceased operations in 2014, and there have been no other activities on the property since then.
- c) There are confirmed impacts of perchloroethene and trichloroethene to the soil, soil vapor, and indoor air to the two-story, 15,424 square foot former dry cleaner building.
- d) The Site was contaminated from the historic operations and disposal practices of the dry cleaning fluids used at the Site. It appears source of the contamination is from releases to the soil beneath the building. It does not appear the groundwater is impacted.

6 Brownfields Site Definition

Richland County Land Reutilization Corporation affirms that Swan Cleaners located at 165 Park Avenue West, Mansfield, Ohio 44902, is not listed on the National Priorities List, it is not subject to unilateral administrative orders, court orders, administrative orders on consent, or judicial consent decrees issued to or entered into by parties under CERCLA. It is not subject to jurisdiction, custody, or control of the United States government. It is a commercial real property, that provided dry cleaning services (all dry cleaning was done on site), where redevelopment and reuse is complicated by the presence of hazardous substances, pollutants, and contaminants.

7 Environmental Assessment Required for Cleanup Proposals

A Phase II Environmental Site Assessment was conducted in September and December 2018 to evaluate the potential impacts of chlorinated solvents used during the dry cleaning operations at the Site to the soil, groundwater, and indoor air. Borings were drilled and soil, soil vapor, and indoor air samples were collected on the Site. Groundwater was not found to a depth of the bedrock, approximately 15 feet below grade. Results of the sampling and analyses indicated that soil was impacted above the Ohio EPA Voluntary Action Program (VAP) cleanup standards, and indoor air was also impacted above Ohio EPA VPA standards. Asbestos containing materials are also present on the Site. An ASTM E1903-11 compliant report was completed on January 16, 2019 for this Site.

8 Enforcement or Other Actions

There are no known ongoing or anticipated environmental enforcement or other actions related to the site for which Brownfields Grant funding is sought.

9 Sites Requiring a Property-Specific Determination

The Richland County Land Reutilization Corporation affirms that the Site does not need a Property-Specific Determination.

10 Threshold Criteria Related to CERCLA/Petroleum Liability

10.a.i.3 Property Acquired Under Certain Circumstances by Units of State and Local Government

Bart Hamilton, Treasurer, Richland County, Ohio foreclosed upon Swan Cleaners, 165 Park Avenue West, Mansfield, Ohio for unpaid property taxes (total due 12/14/2018 \$28,898.06) Case Number 17 cv 17R. Property was offered for sale by Richland County Sheriff's department October 13, 2017 and again on October 27, 2017 and did not sell. Therefore, it was forfeited to the State of Ohio November 20, 2017.

December 23, 2013, Richland County Commissioners moved to approve a resolution pursuant to ORC 1724.10(A)(2) designating the Richland County Land Reutilization Corporation as the agency for the reclamation, rehabilitation, and reutilization of vacant, abandoned, tax foreclosed, and other real property in the County, directing the Corporation to act on behalf and in cooperation with the County in exercising the powers and performing the duties of the County under ORC 5722.

Richland County Land Reutilization Corporation requested deed for Swan Cleaners from County Auditor January 23, 2019. Deed was received and it was recorded January 24, 2019 transferring ownership from Gordan A Swan Company to Richland County Land Reutilization Corporation.

Richland County Land Reutilization Corporation affirms that we did not cause or contribute to any release of hazardous substances, did not transport hazardous substances or other wise to or from Swan Cleaners located at 165 Park Avenue West, Mansfield, Ohio 44902.

10.a.iii.1.a Information on the Property Acquisition

We requested an Auditor's Deed for Swan Cleaners from County Auditor forfeited property list January 23, 2019 and it was recorded January 24, 2019 transferring sole ownership from Gordan A Swan Company (Jeff Kent) to Richland County Land Reutilization Corporation. The Richland County Land Reutilization Corporation affirms that there is no familiar,

contractual, corporate, or financial relationship with all prior owners or operators of Swan Cleaners.

10.a.iii.1.b Pre-Purchase Inquiry

July 13, 2018 Richland County Land Reutilization Corporation requested from Ohio EPA Targeted Brownfield Assessment funding which was granted. Phase 1 was completed October 2018. Phase 2 was completed January 2019.

10.a.iii.1.c Timing and/or Contribution Toward Hazardous Substances Disposal

When Gordon A Swan, Inc. operated as a dry cleaners from 1946 until they closed their doors April 2014, they walked away leaving everything as it was when it was open for business. Land Bank employees toured the property several times with prospective end users and Ohio EPA representatives. Richland County Land Reutilization Corporation affirms that we did not cause or contribute to any release of hazardous substances, we did not transport substances hazardous or other wise to or from Swan Cleaners located at 165 Park Avenue West, Mansfield, Ohio 44902.

10.a.iii.1.d Post-Acquisition Uses

There has not been any post -acquisition uses, the building has been abandoned and vacant since the Swan Cleaners closed their doors. Land Bank took ownership for the sole purpose of environmental remediation and brownfield redevelopment.

10.a.iii.1.e Continuing Obligations

Pursuant to Ohio Legislative Service Commission Sub. S.B. 172 “*giving County Land Reutilization Corporations right of entry to conduct assessments, appraisals and other health and safety inspections for land that have been forfeited to state for nonpayment of property taxes, and protection from liability for such entrances*”. Richland County Land Bank took all "reasonable steps" with respect to hazardous substances affecting 165 Park Avenue West prior to taking ownership; by providing cooperation, assistance, and access to Ohio EPA and Mannik and Smith Company for the completion of Phase 1 and Phase 2. Ohio EPA staff sealed all open chemical containers December 2018 prior to us taking ownership. Richland county Land Bank confirms our commitment to comply with land-use restrictions and not impede the effectiveness or integrity of any institutional controls; assist and cooperate with those performing the cleanup and provide access to the property; comply with all information requests and administrative subpoenas that have or may be issued in connection to site; and provide all legally required notices.

11 Cleanup Authority and Oversight Structure

11.a Cleanup Oversight

The Richland County Land Bank will oversee the cleanup grant and implementation in continuance of our Ohio EPA Technical Brownfield Assessment and oversight for the Site. The Land Bank is working closely with Ohio EPA personnel and Richland County Health Department to assure Swan Cleaners complies with all Ohio EPA’s Voluntary Action Program (VAP) in order to receive a Covenant Not To Sue for the Site. This Covenant is vital to our redevelopment plan.

11.b Access to Adjacent Properties

Richland County Land Bank has already received permission from neighboring properties for testing, as needed. We are working especially close with Ace Auto, the property down gradient and directly east of the Site, Swan Cleaners. There is approximately 20 feet between the 2 structures. Ace Auto has already signed an Ohio EPA Consent to Access form.

12 Community Notification

12.a Draft Analysis of Brownfields Cleanup Alternatives

The community was provided a copy of the draft ABCA, and allowed to comment. The draft ABCA is attached and evaluated the following options:

- Option 1: Do nothing (leaving site contaminated indefinitely)
- Option 2: Remove and dispose of impacted soil from rear of property (approximately 1,900 tons), abate asbestos, and install vapor intrusion mitigation system (recommended option).
- Option 3: Abate asbestos, demolish building, remove and dispose of all impacted soil.

12.b Community Notification Ad

PUBLIC NOTICE EPA BROWNFIELDS CLEANUP GRANT PROPOSAL RICHLAND COUNTY LAND REUTILIZATION CORPORATION

The Richland County Land Reutilization Corporation (Land Bank) is applying for up to \$500,000.00 Brownfield Cleanup Grant from the United States Environmental Protection Agency for activities associated with the remediation of the former Swan Cleaners facility located at 165 Park Avenue West, Mansfield, Ohio.

As part of the application process, the Land Bank is required to obtain public input to their proposal, which is due January 31, 2019. Starting January 16, 2019, copy of the grant proposal, including the draft ABCA will be available for public review on the Land Banks website (www.richlandcountylandbank.org) and in the Land Bank office located 50 Park Avenue East, Mansfield, Ohio, Lower Level 1.

The Land Bank will also discuss the draft proposal and consider response comments at a public meeting on January 16, 2019 at 1:00 pm in the Land Bank office located 50 Park Avenue East, Mansfield, Ohio, Lower Level 1.

The Land Bank will consider and respond to and/or incorporate all substantial written comments provided by January 19, 2019. Written comments should be directed by email to ahamrick@richlandcountyoh.us or by US Mail to Amy Hamrick, Land Bank Manager, 50 Park Avenue East, Mansfield, Ohio 44902.

Published in the Mansfield News Journal on January 9, 2019

12.c Public Meeting

See attached documentation from January 16, 2019 public meeting.

12.d Submission of Community Notification Documents

See attached submission of community notification documents.

13 Statutory Cost Share

13.a Meet Required Cost Share

The Board of Directors approved, January 9, 2019, to set aside \$100,000 from 2018 DTAC (Richland County Commissioner's approved for Land Bank use five percent of all collections of delinquent real property, personal property, manufactured and mobile home taxes) funds to be used for the cost match associated with the environmental cleanup of Swan Cleaners. Monies for this project has been set aside in a separate account.

13.b Hardship Waiver

Not applying for hardship waiver.

INTERNAL REVENUE SERVICE
P. O. BOX 2508
CINCINNATI, OH 45201

DEPARTMENT OF THE TREASURY

Date: OCT 19 2015

RICHLAND COUNTY LAND REUTILIZATION
CORPORATION
50 PARK AVE E TREASURERS OFFICE
MANSFIELD, OH 44902

Employer Identification Number:
46-5339994
DLN:
17053203317015
Contact Person:
GINGER L JONES ID# 31646
Contact Telephone Number:
(877) 829-5500
Accounting Period Ending:
December 31
Public Charity Status:
170(b)(1)(A)(vi)
Form 990/990-EZ/990-N Required:
Yes
Effective Date of Exemption:
November 7, 2013
Contribution Deductibility:
Yes
Addendum Applies:
No

Dear Applicant:

We're pleased to tell you we determined you're exempt from federal income tax under Internal Revenue Code (IRC) Section 501(c)(3). Donors can deduct contributions they make to you under IRC Section 170. You're also qualified to receive tax deductible bequests, devises, transfers or gifts under Section 2055, 2106, or 2522. This letter could help resolve questions on your exempt status. Please keep it for your records.

Organizations exempt under IRC Section 501(c)(3) are further classified as either public charities or private foundations. We determined you're a public charity under the IRC Section listed at the top of this letter.

If we indicated at the top of this letter that you're required to file Form 990/990-EZ/990-N, our records show you're required to file an annual information return (Form 990 or Form 990-EZ) or electronic notice (Form 990-N, the e-Postcard). If you don't file a required return or notice for three consecutive years, your exempt status will be automatically revoked.

If we indicated at the top of this letter that an addendum applies, the enclosed addendum is an integral part of this letter.

For important information about your responsibilities as a tax-exempt organization, go to www.irs.gov/charities. Enter "4221-PC" in the search bar to view Publication 4221-PC, Compliance Guide for 501(c)(3) Public Charities, which describes your recordkeeping, reporting, and disclosure requirements.

Letter 947

RICHLAND COUNTY LAND REUTILIZATION

Sincerely,

A handwritten signature in black ink, appearing to read 'J. Cooper', with a stylized flourish at the end.

Jeffrey I. Cooper
Director, Exempt Organizations
Rulings and Agreements

DRAFT ANALYSIS OF BROWNFIELD CLEANUP ALTERNATIVES

FORMER SWAN CLEANERS
165 PARK AVENUE WEST
MANSFIELD, OHIO 44905

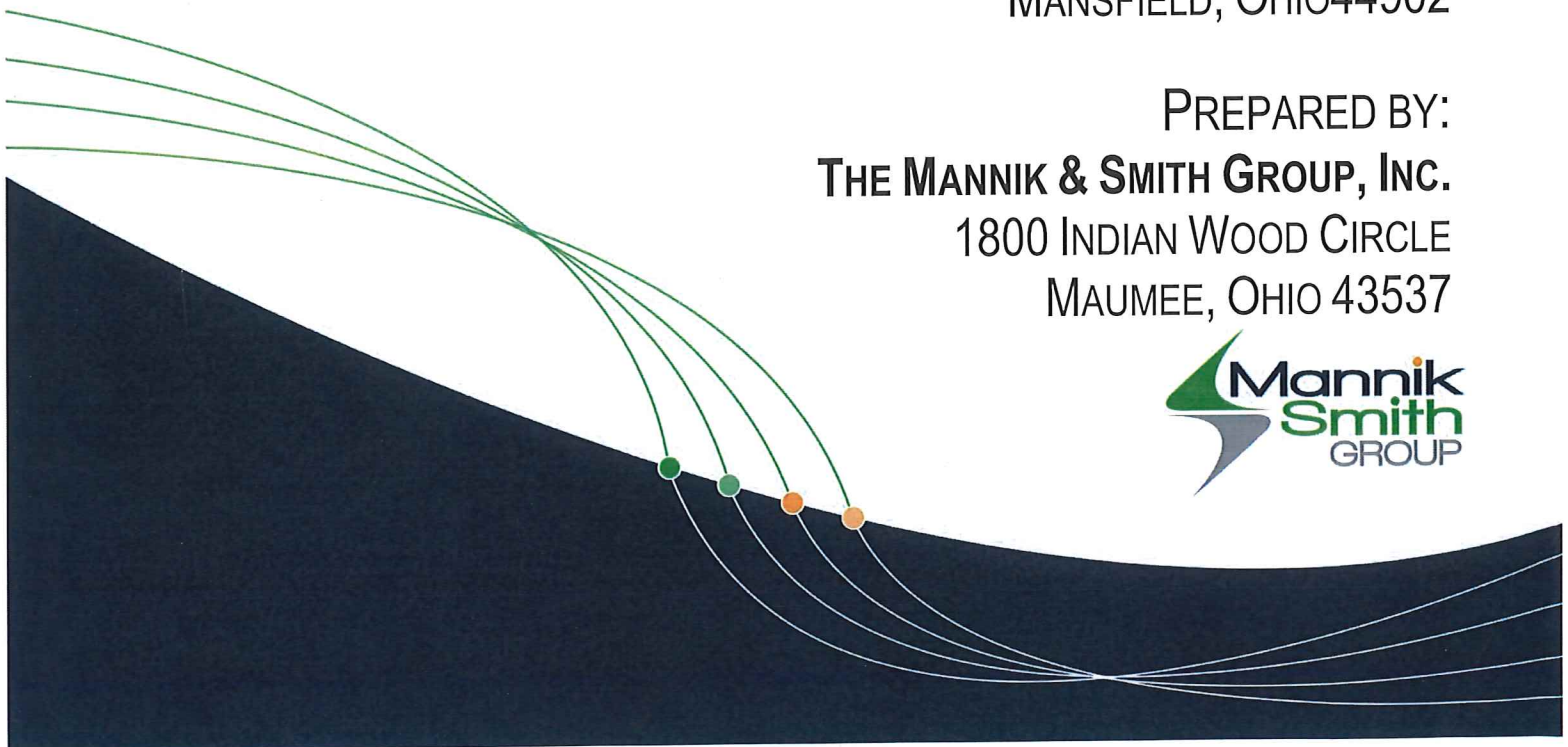
JANUARY 2019

PREPARED FOR:
OHIO ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF ENVIRONMENTAL RESPONSE AND REVITALIZATION
50 W. TOWN STREET, SUITE 700
COLUMBUS, OHIO 43216

AND

RICHLAND COUNTY LAND REUTILIZATION CORPORATION
50 PARK AVENUE EAST
MANSFIELD, OHIO 44902

PREPARED BY:
THE MANNIK & SMITH GROUP, INC.
1800 INDIAN WOOD CIRCLE
MAUMEE, OHIO 43537



ANALYSIS OF BROWNFIELD CLEANUP ALTERNATIVES

FORMER SWAN CLEANERS
165 PARK AVENUE WEST
MANSFIELD, OHIO 44905

PREPARED BY: _____

Matthew S. Pesci

MATTHEW S. PESCI, CPG
SENIOR PROJECT MANAGER

APPROVED BY: _____

Sally L. Gladwell

SALLY L. GLADWELL, CP, CEM, CEI
PRINCIPAL / VICE PRESIDENT



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1.0 INTRODUCTION

The Mannik & Smith Group, Inc. (MSG) was retained by the Ohio Environmental Protection Agency (EPA) Division of Environmental Response and Revitalization to prepare this Draft Analysis of Brownfield Cleanup Alternatives (ABCA) for the Richland County Land Reutilization Corporation (Land Bank). This Draft ABCA is a required element for applying for a Fiscal Year 2019 (FY19) U.S. Environmental Protection Agency (EPA) Brownfields Cleanup Grant.

The property for which funding is intended is comprised of Richland County parcel numbers 027-01-096-13-000 and 027-01-096-12-000 addressed as 165 Park Avenue West, Mansfield, Ohio 44902 (hereinafter collectively referred to as the "Site"). A Site Location map is presented as Figure 1, which is located in Appendix A.

In preparing this Draft ABCA, MSG, the Ohio EPA, and the Richland County Land Bank considered environmental factors, various Site characteristics, surrounding properties, land use restrictions, potential future uses, and cleanup goals.

1.1 Site Description

The Site is rectangular-shaped and comprised of approximately 0.36 acre of commercial land situated on the south side of Park Avenue West, which provides access to and from the Site. The Site is developed with a two-story, 15,424-square foot former dry cleaner constructed in 1946. A Site Layout map is presented as Figure 2, which is located in Appendix A.

1.2 Forecasted Climate Conditions

According to the U.S. Global Change Research Program (USGCRP), climate trends for the Midwest region of the United States include increased temperatures, increased precipitation with greater variability, increased extreme precipitation events, decreased biodiversity, and increased ground-level ozone concentrations (USGCRP, 2018). Some of these factors, most specifically increased precipitation that may affect storm water runoff and flood waters, are most applicable to the cleanup of the Site.

According to the Federal Emergency Management Agency (FEMA) Flood Zone Map 39139C0144E, the Site is located within an area of minimal flood hazard (Zone X) of the Rocky Fork River watershed (FEMA, 2011). However, greater storm frequency and intensity in a changing climate may result in more frequent and more powerful flood waters within the Rocky Fork River watershed, which may result in changes to the flood zone and increased risk of flooding of the Site.

Based on the nature of the Site and its proposed reuse, changing temperature, increased precipitation with greater variability, and increased storm water runoff and flood waters are not likely to significantly affect the Site.

1.3 Site History

According to a review of historical Sanborn Maps, aerial photographs, and city directories the Site operated as a dry cleaning facility from 1946 through 2014 when Swan Cleaners ceased operations at the Site, after which the Site has been vacant. Prior to the construction of the current Site building in 1946, the Site was developed with a single residence dating back to at least 1892.

1.4 Previous Environmental Investigations

SAS Environmental Inc. (SAS) completed a Phase II ESA of the east adjacent Ace Auto property in 2001 and identified tetrachloroethene (PCE) above the Ohio Voluntary Action Program (VAP) Residential Generic

Numeric Standard (GNS), but below the VAP Commercial / Industrial GNS in a soil boring next to the southeast corner of the Site. The Ohio EPA also collected indoor air and sub-slab vapor samples from the Site on August 30, 2018 that indicate indoor air within the Site building and sub-slab vapor at the Site are impacted with multiple chlorinated volatile organic compounds (VOCs) above their respective VAP Residential GNS.

MSG completed a Phase I Environmental Site Assessment (ESA) and asbestos survey of the Site in October 2018, which identified the following Recognized Environmental Condition/Identified Area (REC/IA):

REC/IA-1: The Site operated as a dry cleaner from 1946 through 2014. Several containers of various chemicals associated with the dry cleaning process remain in the Site building and staining is present on the floor throughout the ground level of the Site building. Floor drains and a sump are also present in the Site building and it is unknown if they are connected to the municipal sanitary sewer system. Further, soil analytical data from the east adjacent property and indoor air and sub-slab vapor data from the Site indicate that a release of chlorinated VOCs associated with the dry cleaning process has occurred at the Site.

Although, not considered a REC or IA in connection with the Site, MSG identified asbestos containing materials (ACM) within the Site building that included fire doors, gaskets, floor tiles, floor tile mastic, window caulk, and wall board.

MSG also completed a Focused Phase II ESA of the Site in January 2019 to evaluate the Site for the presence of chlorinated VOCs that may have been released to environmental media from the historical use of the Site as a dry cleaning facility and evaluate the vapor intrusion pathway for the Site building and near adjacent off-Site receptors. Results of the Focused Phase II ESA indicate the following:

- With the exception of a perched, discontinuous shallow groundwater zone at soil boring GP-02, shallow groundwater was not encountered in the overburden above the bedrock surface in any of the other soil borings advanced at the Site;
- The soil sample collected from GP-17 located south of the Site building is impacted with PCE above the VAP Residential, Commercial / Industrial, and Construction / Excavation Worker GNS. The soil analytical data further indicate that all other concentrations of detected VOCs are below their respective VAP GNS for Residential (unrestricted) use;
- The data indicate that soil vapor along the perimeter of the Site is impacted with one or more chlorinated VOCs above their respective VAP Residential and/or Commercial Indoor Air Standards at all sampling locations. MSG also used the U.S. EPA Vapor Intrusion Screening Level (VISL) Calculator to evaluate the soil vapor analytical results and identify if the detected VOCs pose a potential risk to indoor air via the vapor intrusion pathway.
 - The calculated indoor air concentrations of 1,2,4-trimethylbenzene, carbon tetrachloride, chloroform, ethylbenzene, naphthalene, PCE, TCE, and vinyl chloride are above both their respective VAP Residential and Commercial / Industrial Indoor Air Standards;
 - The calculated indoor air concentrations of 1,3-butadiene, benzene, benzyl chloride, hexane, and xylenes are above their VAP Residential Indoor Air Standard, but below their Commercial / Industrial Indoor Air Standard;
 - The calculated cumulative carcinogenic risk and non-carcinogenic hazard quotients are above their respective target threshold risk and hazard values for both the residential and commercial receptors.
- The data indicate that sub-slab vapor beneath the Site building is impacted with one or more chlorinated VOCs above their respective VAP Residential and/or Commercial Indoor Air Standards at all sampling locations. MSG also used the U.S. EPA VISL Calculator to evaluate the sub-slab vapor

analytical results and identify if the detected VOCs pose a potential risk to indoor air via the vapor intrusion pathway.

- The calculated indoor air concentrations of PCE and TCE are above both their respective VAP Residential and Commercial / Industrial Indoor Air Standards; and,
- The calculated cumulative carcinogenic risk and non-carcinogenic hazard quotients are above their respective target threshold risk and hazard values for both the residential and commercial receptors.
- The combined soil and sub-slab vapor analytical results and calculated indoor air concentrations indicated that there is a vapor intrusion risk to indoor air from chlorinated VOCs for the Site building and potentially to surrounding adjacent buildings for both residential and commercial receptors.

1.5 Current Environmental Concerns

As noted above, chlorinated VOCs are present in soil, soil vapor, and sub-slab vapor and present a vapor intrusion risk to the Site building. Appendix B contains a copy of MSG's 2019 Focused Phase II ESA report. Further, ACM is present in the Site building. Appendix C contains summary tables and diagrams of the identified ACM within the Site building. Therefore, the Richland County Land Bank intends to mitigate the vapor intrusion risk and abate the ACM prior to their planned renovation of the Site building and redevelopment of the Site.

2.0 APPLICABLE REGULATIONS AND CLEANUP STANDARDS

As described in Section 1.3, chlorinated VOCs were detected at levels of concern in soil, soil vapor, and sub-slab vapor samples at the Site. Following is a summary of the applicable regulations and Ohio EPA VAP cleanup standards that will apply to the cleanup of the Site.

2.1 Soil Cleanup Standards

Ohio Administrative Code (OAC) Rule 3745-300-08 establishes generic direct-contact soil standards for VOCs. Table 2.1 summarizes the applicable generic direct-contact soil standards for major contaminants associated with the former use of the Site as a dry cleaning facility (i.e. chlorinated VOCs) and the maximum concentrations detected in Site soils.

Table 2.1 Chlorinated VOCs – Direct Contact Soil Standards

Parameter	Generic Direct Contact Soil Standard (mg/kg)			Max Detected Site Concentration (mg/kg)	Sample ID and Depth (ft)
	Residential	Commercial/Industrial	Construction/Excavation		
1,2,4-Trimethylbenzene	160	220	220	15	GP-01 (2-4')
1,3,5-Trimethylbenzene	180	180	180	6.1	GP-01 (2-4')
Carbon Disulfide	740	740	740	0.016	GP-19 (10-12')
Carbon Tetrachloride	15	79	460	8.2	GP-03 (6-8')
Chloroform	7.4	38	320	0.098	GP-03 (6-8')
Naphthalene	90	450	560	0.21	GP-06 (2-4')
PCE	170	170	170	190	GP-17 (4-6')
Trans-1,2-Dichloroethene	370	1,700	1,700	0.0075	GP-17 (4-6')
Trichloroethene (TCE)	11	51	17	11	GP-17 (4-6')

2.2 Indoor Air Cleanup Standards

OAC Rule 3745-300-08 establishes generic indoor air standards for VOCs. Table 2.2 summarizes the applicable generic indoor air standards for major contaminants associated with the former use of the Site as a dry cleaning facility (i.e. chlorinated VOCs) and the calculated indoor air concentrations based on output from the U.S. EPA Vapor Intrusion Screening Level (VISL) Calculator using the maximum concentration of each detected VOC in either soil vapor or sub-slab vapor.

Table 2.2 Chlorinated VOCs – Indoor Air Standards

Parameter	Generic Indoor Air Standard ($\mu\text{g}/\text{m}^3$)		Calculated Indoor Air Concentration ($\mu\text{g}/\text{m}^3$)	Site Maximum Soil or Sub-Slab Vapor Concentration ($\mu\text{g}/\text{m}^3$)
	Residential	Commercial/Industrial		
1,2,4-Trimethylbenzene	7.3	31	122	4,080
1,3-Butadiene	0.81	4.1	0.88	29.2
Benzene	3.1	16	6.21	207
Benzyl Chloride	0.5	2.5	2.21	73.5
Carbon Tetrachloride	4.1	20	78,600	2,620,000
Chloroform	1.1	5.3	6,120	204,000
Ethylbenzene	9.7	49	50.1	1,670
Hexane	730	3,100	1,580	52,600
Naphthalene	0.72	3.6	70.2	2,340
PCE	42	180	171,000	5,690,000
TCE	2.1	8.8	4,410	147,000
Vinyl Chloride	1.6	28	1,620	53,900
Xylenes	100	440	111	3,710

3.0 EVALUATION OF CLEANUP ALTERNATIVES

The following sections summarize the objectives of the proposed remedial actions, alternative remedial options, the recommended remedial alternatives and justification for the recommendations.

3.1 Remedial Objectives

The Richland County Land Bank and City of Mansfield are partnering with two non-profit organizations to redevelop part of downtown Mansfield into a center for arts, entertainment, and education identified as the "Imagination District." The two jewels of the new Imagination District are the Renaissance Theatre and a soon-to-be relocated, expanded, and enhanced Little Buckeye Children's Museum. The Site is located directly across the street from the future Little Buckeye Children's Museum, which is adjacent to the Renaissance Theatre. Current project plans for the Imagination District include renovation of the Site building into the following:

- Two retail shops in the front (north) portion of the first floor;
- An apartment for Renaissance Theatre guest performers in the rear (south) portion of the first floor;
- An approximately 5,000-square foot area on the second floor to be used for storage and set building by both the Renaissance Theatre and the Little Buckeye Children's Museum; and,
- A dance studio for the Renaissance Education Center in the remainder of the second floor.

Therefore, the Richland County Land Bank plans to complete pre-renovation vapor intrusion mitigation and asbestos abatement activities to help prepare the building for redevelopment. The Richland County Land Bank plans to use the (FY19) U.S. EPA Brownfields Cleanup Grant (if awarded) to finance:

- The removal of impacted soil from the Site;
- The installation of a vapor intrusion mitigation system; and,
- The abatement (removal) of the ACM within the Site building.

Completing these remedial tasks will reduce potential indoor air exposure for future occupants of the Site building, prevent a release of asbestos to the environment during renovation activities, and reduce potential ACM exposure to renovation personnel and future Site occupants thereby facilitating redevelopment of the Site. Because of the proposed mixed residential and commercial use for the Site building, the Ohio VAP Residential GNS for soil and Indoor Air discussed in Section 2.0 will be the target cleanup standards for the Site.

3.2 Potential Cleanup Alternatives – Chlorinated VOCs

3.2.1 Alternative No. 1 – No Action

The no action alternative would be the lowest cost alternative. However, the no action alternative would not mitigate the potential threats to human health and the environment that are known to exist at the Site. In addition, the no action alternative would not facilitate preparation of the Site building for renovation and therefore the chlorinated VOCs vapor intrusion risk to indoor air within the Site building would remain an impediment for the planned Site redevelopment.

3.2.2 Alternative No. 2 – Building Demolition and Soil Removal

This alternative includes the demolition of the Site building and removal and proper off-Site disposal of all impacted soil identified at the Site.

One or more chlorinated VOCs were detected in each of the soil borings advanced at the Site to date, with the concentration of PCE exceeding its Ohio VAP GNS for all receptors at boring GP-17 located south of the Site building. In addition, while below the Ohio VAP GNS for all receptors, the concentrations of PCE at borings GP-16 and GP-18 (also located south of the Site building) are also elevated and therefore could be contributing to the vapor intrusion risk to the Site building. However, due to the limited nature of soil sampling beneath the Site building and based on the concentrations of chlorinated VOCs in the soil and sub-slab vapor samples collected at the Site, it is presumed that additional areas of impacted soil above applicable standards exist beneath the Site building. Therefore, to facilitate access to all subsurface soils at the Site and identification of all source areas of chlorinated VOCs impact, the Site building will be demolished. The building demolition work would be performed in accordance with all applicable local and state ordinances, regulations, and guidelines.

Subsequently, an approximate 75 x 30 foot area would be excavated to a depth of approximately 15 feet around borings GP-16, GP-17, and GP-18 to remove approximately 1,900 tons of impacted soil from this area of the Site. It is anticipated that up to 2,000 additional tons of impacted soil will be identified and removed from beneath the Site building following its demolition. An environmental consulting firm will oversee soil removal activities, collect confirmation samples from excavation sidewalls and bottoms for laboratory analysis, document final quantities of soil removed and backfilled placed, and prepare a remedial actions completion report following the soil removal activities.

One consideration that may make excavation slightly more difficult to implement is the increased frequency of heavy rainfall events that has been experienced in recent years in Mansfield, Ohio. Although efforts will be made to schedule the work in the dry weather months, the amount of precipitation over a short period of time from one of these heavy rainfall events could cause delays in the implementation of the excavation work.

Cost: The cost to complete the building demolition and soil removal activities is estimated to be approximately \$634,000.

- \$9,000 for preparing a Final ABCA and developing a Quality Assurance Project Plan (QAPP) in accordance with U.S. EPA guidelines;
- \$150,000 for demolition contractor;
- \$35,000 to complete an existing conditions survey, prepare demolition specifications and contractor bid documents, and assist with the contractor selection process;
- \$25,000 for additional soil investigation to identify areas of impact beneath the Site building;
- \$273,000 to load, transport, and dispose of up to 3,900 tons of impacted soil;
- \$117,000 to import and place clean backfill; and,
- \$25,000 for soil removal oversight, testing, and final remediation reporting.

This alternative would remove the source of the vapor intrusion risk to indoor air at the Site and would meet the remediation objectives. Human health and environmental risks posed by the chlorinated VOCs would be mitigated and the impediments to Site redevelopment would be removed. However, this alternative would not meet the objectives of retaining the Site building for the planned future redevelopment of the Site and exceeds the amount of potentially available remediation grant funds.

3.2.3 Alternative No. 3 – Vapor Mitigation System and Limited Soil Removal

This alternative includes the installation of a sub-slab depressurization/vapor mitigation system in the Site building to mitigate the chlorinated VOCs present in Site soil and sub-slab vapor and the removal and proper off-Site disposal of impacted soil from behind the Site building.

Based on an evaluation of the existing building conditions, a sub-slab depressurization/vapor mitigation system will be designed and installed in the Site building. This system will collect vapors from beneath the Site building and actively vent them above the Site building's roofline to the atmosphere, thereby mitigating the vapor intrusion risk to indoor air for future occupants.

Regular ongoing operations and maintenance (O&M) of the vapor mitigation system and periodic collection of indoor air samples would be necessary to ensure the system is operating properly and continuing to protect occupants of the Site building from a vapor intrusion risk.

In addition, an approximate 75 x 30 foot area would be excavated to a depth of approximately 15 feet around borings GP-16, GP-17, and GP-18 to remove approximately 1,900 tons of impacted soil from this area of the Site. An environmental consulting firm will oversee soil removal activities, collect confirmation samples from the excavation sidewalls and bottom for laboratory analysis, document final quantities of soil removed and backfilled placed, and prepare a remedial actions completion report following the soil removal activities.

One consideration that may make excavation slightly more difficult to implement is the increased frequency of heavy rainfall events that has been experienced in recent years in Mansfield, Ohio. Although efforts will be made to schedule the work in the dry weather months, the amount of precipitation over a short period of time from one of these heavy rainfall events could cause delays in the implementation of the excavation work.

Cost: The cost to install a vapor mitigation system and complete soil removal activities from behind the Site is estimated to be approximately \$404,000.

- \$9,000 for preparing a Final ABCA and developing a QAPP in accordance with U.S. EPA guidelines;
- \$110,000 for vapor mitigation system design/installation contractor;
- \$10,000 for oversight and documentation of the vapor mitigation system installation;
- \$25,000 to complete an existing conditions survey of the Site building to facilitate the design of the vapor mitigation system;
- \$133,000 to load, transport, and dispose of up to 1,900 tons of impacted soil from behind the Site building;
- \$57,000 to import and place clean backfill;
- \$50,000 for soil removal oversight, confirmation soil and indoor air sampling, analytical testing, and final remediation reporting; and,
- \$10,000 for initial two years of vapor mitigation system O&M and indoor air sampling.

This alternative would remove chlorinated VOCs in soil source area from behind the Site building, mitigate the vapor intrusion risk to indoor air for the Site building, and would meet the remediation objectives. Human health and environmental risks posed by the chlorinated VOCs would be mitigated and allow for continued use of the existing Site building. This alternative has the greatest ability to meet the objectives of the redevelopment plans for the Site.

3.3 Potential Cleanup Alternatives – ACM

3.3.1 Alternative No. 1 – No Action

The no action alternative would be the lowest cost alternative. However, the no action alternative would not mitigate the potential threats to human health and the environment that are known to exist in the Site building. In addition, the no action alternative would not facilitate preparation of the Site building for renovation and therefore the ACM in the building would remain an impediment for the planned Site redevelopment.

3.3.2 Alternative No. 2 – Complete Abatement of ACM

This alternative includes the removal and proper off-Site disposal of all ACM identified within the Site building by a licensed asbestos abatement contractor prior to the renovation of the building.

The asbestos abatement work would be performed in accordance with the requirements of 29 CFR 1926.1101 (Asbestos Construction Standard), Ohio EPA Ohio Administrative Code (OAC) 3745-20, and 40 CFR Part 61, Subpart M. Notification of intent to renovate the building would be provided to the Ohio EPA per the National Emissions Standards for Hazardous Air Pollutants (NESHAP) requirements at least 10 working days before initiating the ACM abatement activities. The notification would specify the facility owner and the selected/approved contractor, and include a summary of the project description, the planned schedule, planned waste disposal (Type II Municipal Solid Waste Landfill) location, and necessary engineering controls. NESHAP requirements would also be met for asbestos identification, adequate wetting of surfaces to be abated, lack of visible emissions, and proper packaging and labelling of waste materials for disposal.

Final air clearance samples would be collected to verify the adequacy of the abatement activities upon completion. Property trained and equipped personnel would be used for all of the required work. Required notifications would be provided to the Ohio EPA and/or local oversight entities in a timely manner.

Cost: The cost to complete ACM abatement activities is estimated to be approximately \$55,000

- \$40,000 for asbestos abatement contractor;
- \$4,500 to prepare asbestos abatement specifications; and,
- \$10,500 to complete air clearance sampling and final reporting.

This alternative would remove the identified ACM from the Site building and would meet the remediation objectives. Human health and environmental risks posed by the ACM would be mitigated and the impediments to Site redevelopment would be removed. This alternative has the greatest ability to meet the objectives of preparing the Site building for renovation.

3.4 Recommended Brownfield Cleanup Alternatives

3.4.1 Chlorinated VOCs

Alternative No. 1 (No Action Alternative) would not address the chlorinated VOCs vapor intrusion risk to indoor air within the Site building, would not reduce human health or environmental risk, and would not meet the project goals. The chlorinated VOCs vapor intrusion risk to indoor air within the Site building would therefore remain an impediment for the planned Site redevelopment.

Alternative No. 2 (Building Demolition and Soil Removal) would meet some of the project objectives by mitigating human health and environmental risks posed by the chlorinated VOCs present in Site soils, soil vapor, and sub-slab vapor prior to planned re-development activities, without the requirement for future obligations or actions. However, this is the most expensive alternative and would not meet the project objective of renovating and reusing the existing Site building.

Alternative No. 3 (Vapor Mitigation System and Limited Soil Removal) would meet the project objectives by mitigating human health and environmental risks posed by the chlorinated VOCs present in Site soils, soil vapor, and sub-slab vapor prior to planned re-development activities. This alternative would require future obligations and actions to ensure the continued operation of the vapor mitigation system; however, it would meet the project objective of renovating and reusing the existing Site building.

Alternative No. 3 is, therefore, recommended for implementation to protect human health and to enable safe redevelopment of the Site.

3.4.2 ACM

Alternative No. 1 (No Action Alternative) would leave ACM in place, would not reduce human health or environmental risk, and would not meet the project goals. The ACM within the Site building would therefore remain an impediment for the planned Site redevelopment.

Alternative No. 2 (Complete Abatement of ACM) would meet the project objectives by mitigating human health and environmental risks posed by the ACM prior to planned renovation activities, without the requirement for future obligations or actions.

Alternative No. 2 is, therefore, recommended for implementation to protect human health and to enable safe redevelopment of the Site.

3.5 Green and Sustainable Remediation Measures for the Selected Alternatives

To make the selected alternatives greener or more sustainable, several techniques are planned. The most recent Best Management Practices (BMPs) issued under ASTM Standard E-2893: Standard Guide for Greener Cleanups will be used as a reference in the cleanup efforts. The Richland County Land Bank will recommend that the cleanup contractors follow an idle-reduction policy and use heavy equipment with advanced emissions controls operated on ultra-low sulfur diesel. The excavation work will be completed during the dry-weather months (i.e. summertime) in order to minimize potential groundwater infiltration into the excavation area, thereby reducing potential dewatering needs and the amount of dewatering liquids requiring disposal/treatment. The number of mobilizations to the Site will be minimized to reduce the amount of vehicle exhaust from project vehicles and erosion control measures will be used to minimize runoff into environmentally sensitive areas.

4.0 CONCLUSIONS

The remedial alternatives were evaluated based on effectiveness in meeting the remedial objectives, ability to be implemented, cost-effectiveness, ability to meet project time constraints, and the intended future use of the Site. We consider Chlorinated VOCs Alternative No. 3 and ACM Alternative No. 2 to be the most technically feasible, the most likely to protect human health and the environment, and the most cost-effective and timely options to meet the project goals.

5.0 REFERENCES

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APPENDIX A FIGURES



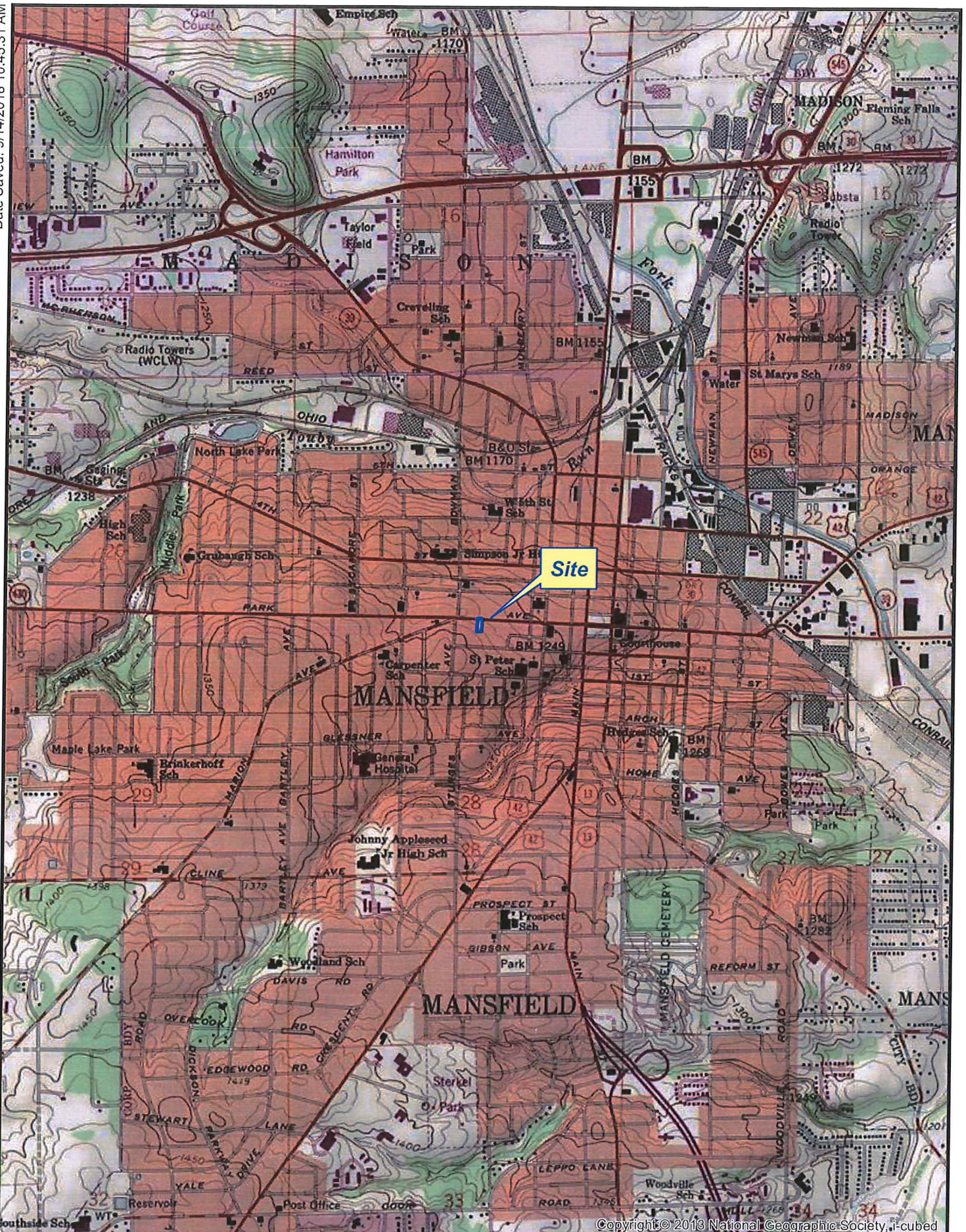
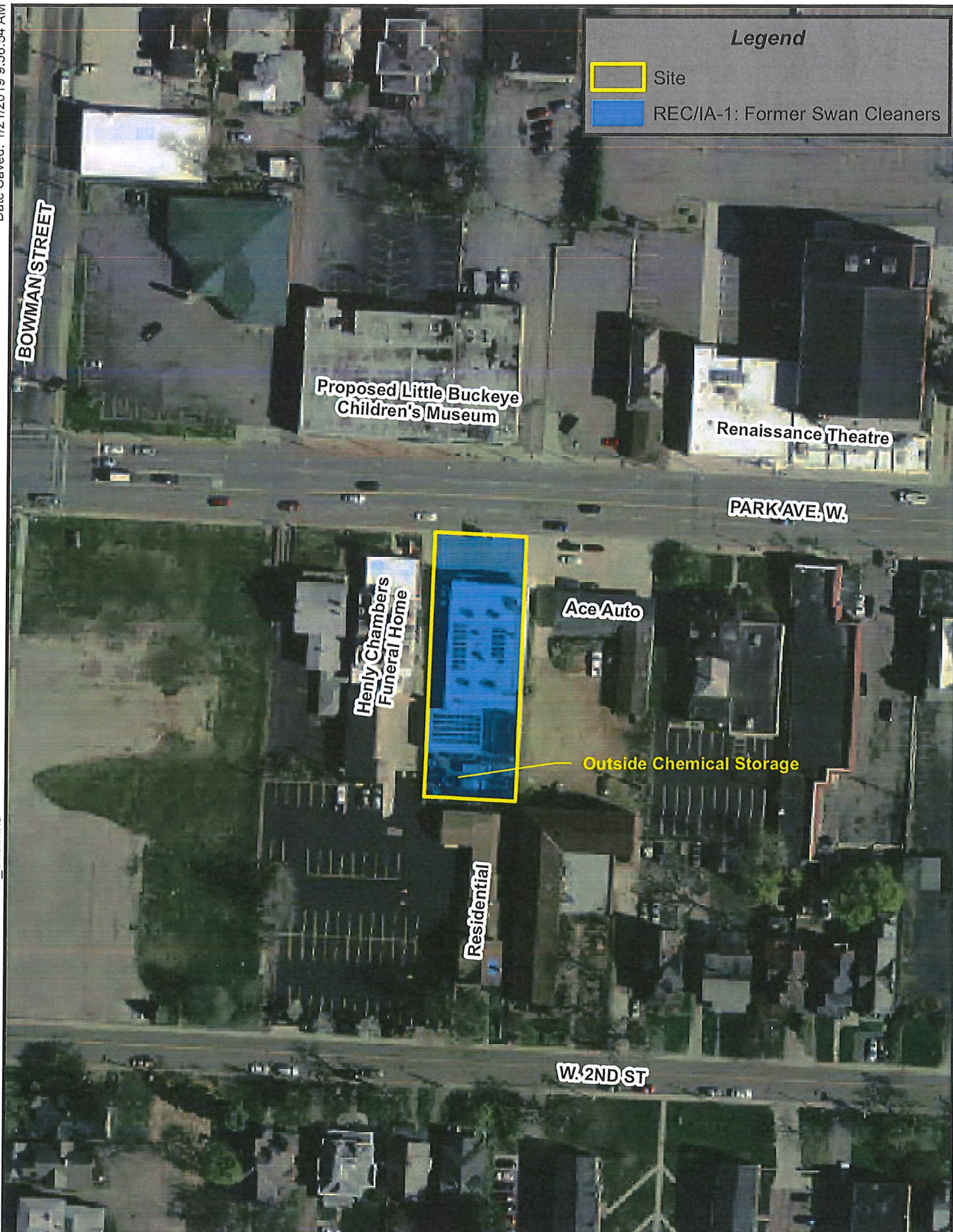


Figure 1: Site Location Map
Former Swan Cleaners
165 Park Avenue West
Mansfield, Ohio

Notes
Mansfield North, Richland Co., OH 1982
Mansfield South, Richland Co., OH 1984

0 1,000 2,000 Feet

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**Figure 2: Site Layout Map
Former Swan Cleaners
165 Park Avenue West
Mansfield, Ohio**

Notes

The Richland County photography, dated April 2013, is provided by OGRIP as part of the Ohio Statewide Imagery Program.

0 50 100 Feet



APPENDIX B
FOCUSED PHASE II ESA REPORT



FOCUSED PHASE II ENVIRONMENTAL SITE ASSESSMENT

FORMER SWAN CLEANERS
165 PARK AVENUE WEST
MANSFIELD, OHIO 44905

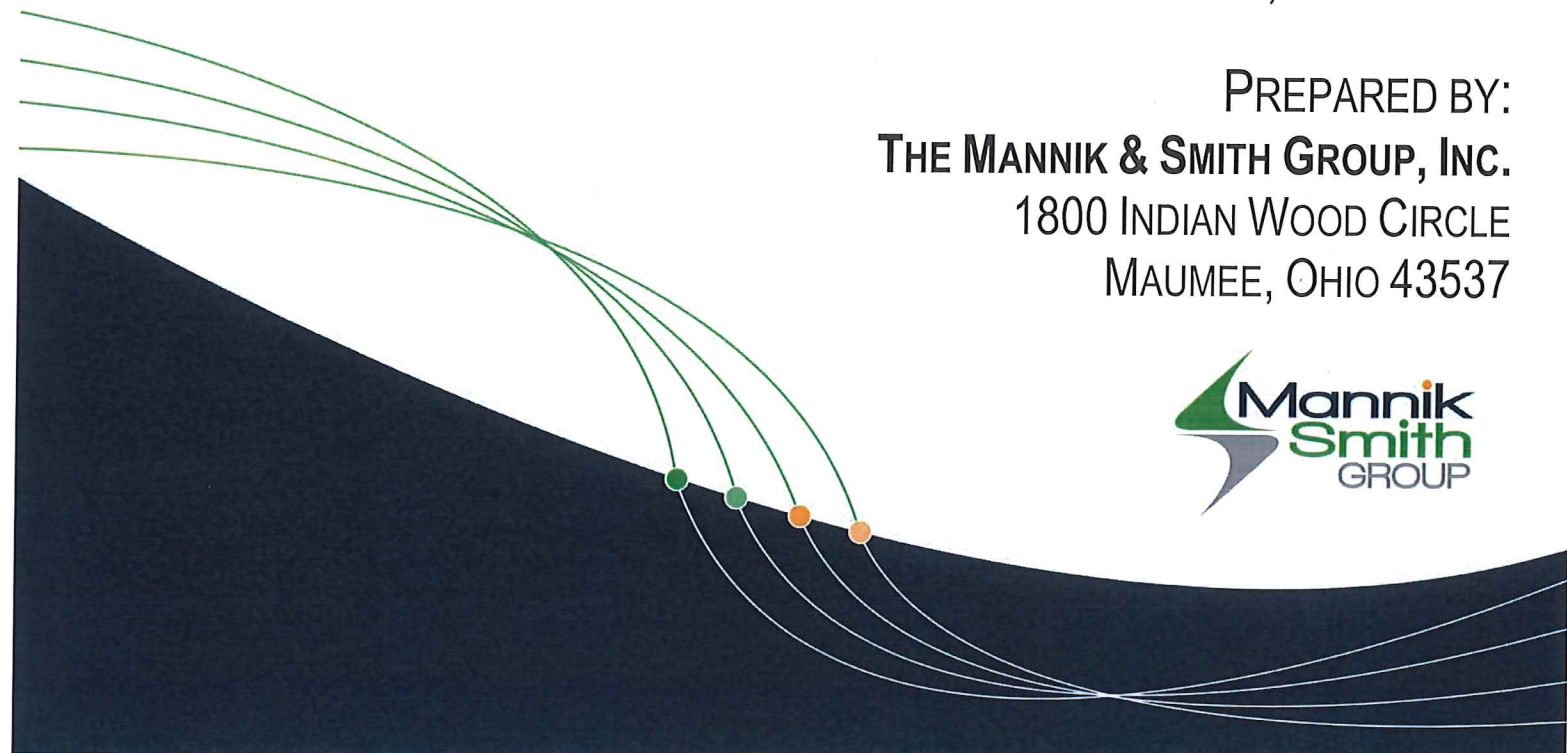
JANUARY 2019

PREPARED FOR:
OHIO ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF ENVIRONMENTAL RESPONSE AND REVITALIZATION
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AND

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50 PARK AVENUE EAST,
MANSFIELD, OHIO 44902

PREPARED BY:
THE MANNIK & SMITH GROUP, INC.
1800 INDIAN WOOD CIRCLE
MAUMEE, OHIO 43537



FOCUSED PHASE II ENVIRONMENTAL SITE ASSESSMENT

FORMER SWAN CLEANERS

165 PARK AVENUE WEST

MANSFIELD, OHIO 44905

PREPARED BY: _____

Matthew S. Pesci

MATTHEW S. PESCI, CPG
SENIOR PROJECT MANAGER

APPROVED BY: _____

Sally L. Gladwell

SALLY L. GLADWELL, CP, CEI, CEM
PRINCIPAL / VICE PRESIDENT



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1.0 INTRODUCTION

The Mannik & Smith Group, Inc. (MSG) was retained by the Ohio Environmental Protection Agency (EPA) Division of Environmental Response and Revitalization to complete a Focused Phase II Environmental Site Assessment (ESA) at the former Swan Cleaners property addressed as 165 Park Avenue West, Mansfield, Ohio 44905 (hereinafter referred to as the "Site").

The Site is rectangular and comprised of approximately 0.36 acre of commercial land situated on the south side of Park Avenue West, which provides access to and from the Site (Figures 1 and 2). The Site is developed with a two-story, 15,424-square foot former dry cleaner constructed in 1946.

MSG completed a Phase I ESA of the Site in October 2018. According to a review of historical Sanborn Fire Insurance Maps (Sanborn Maps), aerial photographs, and city directories the Site operated as a dry cleaning facility from 1946 through 2014 when Swan Cleaners ceased operations at the Site, after which the Site was left vacant. SAS Environmental Inc. (SAS) completed a Phase II ESA of the east adjacent Ace Auto property in 2001 and identified tetrachloroethene (PCE) above the Ohio Voluntary Action Program (VAP) Residential Generic Numeric Standard (GNS), but below the VAP Commercial / Industrial GNS in a soil boring next to the southeast corner of the Site. The Ohio EPA also collected indoor air and sub-slab vapor samples from the Site on August 30, 2018 that indicate indoor air within the Site building and sub-slab soil vapor at the Site are impacted with multiple chlorinated volatile organic compounds (VOCs) above their respective VAP Residential GNS.

MSG's Phase I ESA identified the following Recognized Environmental Condition/Identified Area (REC/IA) as described below:

REC/IA-1: The Site operated as a dry cleaner from 1946 through 2014. Several containers of various chemicals associated with the dry cleaning process remain in the Site building and staining is present on the floor throughout the ground level of the Site building. Floor drains and a sump are also present in the Site building and it is unknown if they are connected to the municipal sanitary sewer system. Further, soil analytical data from the east adjacent property and indoor air and sub-slab soil vapor data from the Site indicate that a release of chlorinated VOCs associated with the dry cleaning process has occurred at the Site.

The purpose of the Focused Phase II ESA was to evaluate the Site for the presence of chlorinated VOCs that may have been released to environmental media from the historical use of the Site as a dry cleaning facility and evaluate the vapor intrusion pathway for the Site building and near adjacent off-Site receptors. This report summarizes the findings of the field activities completed by MSG in September 2018 and December 2018. MSG completed the assessment of this Site under Contract Number CSP904716-3, Mobilization Orders #MS19-04 and #MS19-06.

2.0 GEOGRAPHICAL/GEOLOGICAL SETTING

Understanding the physical setting of the Site is essential to understanding the potential pathways and exposure routes that may exist. To understand local hydrogeologic conditions in the Site vicinity, MSG compiled the following geologic information from publicly available resources:

2.1 Surficial Geology and Geologic Setting

The Site lies within the Glaciated Allegheny Plateaus Section of the Central Lowland Physiographic Province of North America. Specifically, the Site lies within the Killbuck-Glaciated Pittsburgh Plateau which is characterized by ridges and flat uplands generally above 1,200 feet, covered with thin drift and dissected by steep valleys (Ohio Division of Geological Survey, 1998).

MSG obtained soils information for the Site from the Soil Survey of Richland County, Ohio (United States Department of Agriculture, 1980 and 2017). Soils on the Site have been identified as belonging to the Del Rey-Lenawee association which is characterized by level to nearly level, very poorly drained to somewhat poorly drained soils that are formed in clayey and loamy glacial lake sediment. Two soil types are present at the Site, which are described as follows:

Urban Land- The majority of the Site consists of Urban Land, which is a designation for urban areas that consist of houses, office buildings, streets, parking lots, and other urban structures. In the few small areas of open space, the soils have been disturbed and very little natural soil remains.

Canfield silt loam (CdB) – The Canfield silt loam unit is described as being gently sloping (2 to 6 percent slopes), moderately well drained silt loam formed on till plains. Depth to a root-restrictive layer is reportedly between 15 to 30 inches.

The United States Geological Survey (USGS) 7.5-Minute topographic map for the Mansfield North, Richland County, OH quadrangle (dated 1982) and Mansfield South, Richland County, OH quadrangle (dated 1984) indicate that the Site is located in a moderately sloping area within the City of Mansfield. The general ground surface elevation near the Site is approximately 1,270 to 1,280 feet above mean sea level (msl).

The topography of the area implies that shallow groundwater movement is to the east to northeast. A copy of the appropriate portions of the USGS maps is presented as Figure 1, the Site Location Map.

2.2 Hydrogeology

Potable water is provided to the surrounding area and is available to the Site from the City of Mansfield. However, according to the ODNR, there are approximately 48 potable or groundwater monitoring wells within 0.5 mile of the Site. Well Number 906276 is the closest potable water located 0.08 mile west-northwest of the Site.

3.0 FIELD ACTIVITIES AND SAMPLING PROCEDURES

3.1 Investigation Methods

As described in Section 1.0 of this report, MSG's October 2018 Phase I ESA identified one REC/IA at the Site. Therefore, MSG contracted with EnviroCore Environmental Drilling Solutions (EnviroCore) to advance 16 soil borings and eight soil vapor sampling points within the REC/IA to varying depths to investigate the perimeter of the Site for potential impacts of chlorinated VOCs from historical dry cleaning operations at the Site. MSG also used hand drilling techniques to advance five soil borings beneath the Site building and installed four Cox-Colvin® vapor pins through the concrete floor of the Site building. In addition, MSG collected one grab groundwater sample from one soil boring that exhibited a shallow depth to a discontinuous, perched groundwater zone at the Site.

The soil boring and vapor point locations are depicted on Figure 3.

3.1.1 Soil Borings and Soil Sampling

On September 26, 2018, EnviroCore advanced 10 soil borings (GP-01 through GP-10) with a truck-mounted Geoprobe® 6600DT drill rig using direct push sampling techniques to depths ranging between 5.5 to 10 feet below existing ground surface (bgs) across the Site (Figure 3). During a second mobilization on December 19, 2018, EnviroCore advanced seven additional borings (GP-16 through GP-22) with a truck-mounted Geoprobe® 7800DT drill rig using direct push sampling techniques to depths ranging between 10.5 to 15 feet bgs. Soil samples from both Geoprobe® drill rigs were collected continuously using a 3.25-inch diameter duel tube sampling system. The duel tube sampling system collects soil samples using a five-foot sample core barrel fitted with a polyvinyl chloride (PVC) liner. It is important to note that three attempts were made to advance GP-21 in the northwest corner of the Site; however, refusal was encountered at two feet bgs during each attempt with no recovery of sub-surface material other than surficial concrete and gravel sub-base gravel fill. Because of the presence of multiple buried utility lines crossing through this area of the Site, no further attempts were made to advance GP-21 and consequently a soil sample from GP-21 was not collected.

Because of doorway and ceiling height restrictions it was not possible to access the Site building with a Geoprobe® drill rig. Therefore, on December 11 and 19, 2018, MSG cored through the floor of the Site building and subsequently advanced five soil borings (GP-11 through GP-15) with either a Geoprobe® hand sampler with a 30-pound weight using direct push sampling techniques or a hand auger to a maximum depth of four feet bgs. Soil samples from the Geoprobe® hand sampler were collected continuously using a 1.25-inch diameter duel tube sampling system. The dual tube sampling system collects soil samples using a two-foot sample core barrel fitted with a PVC liner. Soil samples from the hand auger were collected continuously directly from the hand auger barrel.

MSG collected soil samples on a continuous basis in two-foot increments to the terminus of each soil boring. A portion of each two-foot sample was containerized, labeled as to location and depth, and placed in an ice-filled cooler for potential submittal for laboratory analysis.

MSG described each soil sample in the field by the Visual Manual Method consistent with the Unified Soil Classification System (USCS) with regard to texture and moisture content. Copies of boring logs are presented in Appendix A.

MSG screened the soil samples in the field for the presence of VOCs using a RAE Systems MiniRAE photoionization detector (PID). Field PID readings are presented on the boring logs

(Appendix A). MSG submitted one soil sample from each soil boring exhibiting the highest field screening reading for laboratory analysis.

3.1.2 Soil Vapor Point Installation

On September 26, 2018, EnviroCore installed eight soil vapor monitoring points (VP-01 through VP-08) with a truck-mounted Geoprobe® 6600DT drill rig using 3.25-inch diameter direct push sampling techniques to depths ranging from 5.5 to eight feet bgs (Figure 3). The vapor points were constructed through the direct push drilling rods using a six-inch long stainless steel mesh screen with low density polyethylene (LDPE) tubing extending from the screen to the ground surface. Sand was placed from the bottom of the screens to approximately one foot above the top of the screens. Granular bentonite was then placed within the annular space of the boring surrounding the sample tubing from the top of the sand to within one foot of the ground surface. The end of the sample tubing at the ground surface was fitted with a miniature stopcock. The vapor monitoring points were completed within a flush-mount protective casing set into concrete.

3.1.3 Soil Vapor Point Sampling

MSG collected soil vapor samples from VP-01 through VP-08 on September 27, 2018 and December 19, 2018. Prior to collecting soil vapor samples, MSG purged a minimum of three air volumes from each soil vapor point using a dedicated disposable syringe. Upon completion of purging, MSG connected a Summa® minican (a laboratory-provided stainless steel vessel under vacuum) to the sample tubing using a section of Tygon® tubing. MSG opened the minican valve and recorded the vacuum in the sample canister from the pressure gauge included with the valve assembly prior to sampling. MSG then opened the stopcock to the sample tubing allowing representative soil vapor to enter the canister. Upon completion of sampling, MSG recorded the final vacuum pressure and time.

3.1.4 Sub-Slab Vapor Sampling

MSG installed four Cox-Colvin® vapor pins (VP-09 through VP-12) through the concrete floor of the Site building on December 11, 2018 (Figure 3). On December 19, 2018 MSG returned to the Site to collect sub-slab vapor samples from each of the four vapor pins. MSG connected a Summa® minican (a laboratory-provided stainless steel vessel under vacuum) to each vapor pin using sample tubing provided by the laboratory. MSG opened the minican valve and recorded the vacuum in the sample canister from the pressure gauge included with the valve assembly prior to sampling. MSG then opened the stopcock to the sample tubing allowing representative sub-slab vapor to enter the canister. Upon completion of sampling, MSG recorded the final vacuum pressure and time.

3.1.5 Groundwater Sampling

MSG encountered a perched, discontinuous shallow groundwater zone at soil boring GP-02. Therefore, in lieu of installing a soil vapor monitoring point at this location, MSG collected a grab groundwater sample from the open borehole using a disposable bailer. Shallow groundwater was not encountered in the overburden above the bedrock surface in any of the other soil borings advanced at the Site.

3.2 Laboratory Analysis

Upon collection, MSG placed the soil and groundwater samples in a cooler on ice. MSG shipped all samples under standard chain-of-custody procedures to Ohio VAP Certified Laboratory (CL) ALS Environmental (ALS) of Cincinnati, Ohio via Fed Ex. Analytical parameters were selected for the submitted samples based on the evaluation of the REC/IA as summarized in Table 1. Copies of the final analytical reports are provided in Appendix B.

Soil samples collected from borings GP-01 through GP-20 and GP-22 and the groundwater sample collected from GP-02 were analyzed for VOCs by EPA Method 8260. Soil and sub-slab vapor samples collected from VP-01 through VP-12 were analyzed for VOCs by Method TO-15.

3.3 Field Quality Assurance and Quality Control Procedures

MSG employed field quality assurance and quality control (QA/QC) processes in accordance with standard industry practices and ensured that adequate QA/QC protocols were administered by following standard operating procedures (SOPs). Prior to use for screening samples, the PID was "zeroed-out" in ambient air and then calibrated with a 100 parts per million (ppm) isobutylene in air standard. All soil and groundwater samples were transported to the laboratory on ice under chain-of-custody procedures. (Appendix B).

4.0 DATA EVALUATION

4.1 Boring Log Descriptions

Logs of borings advanced for this Focused Phase II ESA are presented in Appendix A. Borings advanced during this Focused Phase II ESA indicate that the surficial asphalt, topsoil, or concrete at the Site is generally underlain by sand, gravel, and cinder fill material to depths ranging from 0.5 to one foot bgs. The fill material is underlain by a silty clay unit to the termini of the soil borings.

4.2 Analytical Results

MSG completed this Focused Phase II ESA to investigate the Site for potential impacts of chlorinated VOCs that may have been released from the historical use of the Site as a dry cleaning facility. MSG compared the soil analytical results to the Ohio VAP Commercial / Industrial, Construction / Excavation Worker, and Residential (unrestricted use) GNS for direct-contact and compared the groundwater analytical results to the Ohio VAP Unrestricted Potable Use Standards (UPUS). Further, MSG compared the soil and sub-slab vapor analytical results to the Ohio VAP Residential and Commercial / Industrial Indoor Air standards and evaluated the soil and sub-slab vapor analytical results with the U.S. EPA Vapor Intrusion Screening Level (VISL) Calculator.

4.2.1 Soil Analytical Results

The attached Table 2 and Figure 4 present the analytical results of identified constituents in the collected soil samples which are summarized as:

- PCE was detected above the VAP Residential, Commercial / Industrial, and Construction / Excavation Worker GNS in the soil sample collected from GP-17; and,
- All other detected VOC concentrations in soil were below the VAP Residential (unrestricted use) GNS.

4.2.2 Soil Vapor Point Sampling Results

The attached Table 3 and Figure 5 present the analytical results of identified constituents in the collected soil vapor samples from both the September 27, 2018 and December 19, 2018 sampling events, which are summarized as:

- 1,1-Dichloroethane was detected above the VAP Residential Indoor Air Standard, but below the Commercial / Industrial Indoor Air Standard at VP-01 during the December 2018 sampling event;
- 1,1-Dichloroethene was detected above the VAP Residential Indoor Air Standard, but below the Commercial / Industrial Indoor Air Standard at VP-07 and VP-08 during the December 2018 sampling event;
- 1,2,4-Trimethylbenzene was detected above the VAP Residential Indoor Air Standard, but below the Commercial / Industrial Indoor Air Standard at VP-02 during the December 2018 sampling event and above both the VAP Residential and Commercial / Industrial Indoor Air Standards at VP-06 during both sampling events;
- 1,3,5-Trimethylbenzene was detected above both the VAP Residential and Commercial / Industrial Indoor Air Standards at VP-06 during the September 2018 sampling event;
- 1,3-Butadiene was detected above both the VAP Residential and Commercial / Industrial Indoor Air Standards at VP-04 and VP-05 during the September 2018 sampling event;

- Benzene was detected above the VAP Residential Indoor Air Standard, but below the Commercial / Industrial Indoor Air Standard at VP-02 during the December 2018 sampling event. Benzene was also detected above both the VAP Residential and Commercial / Industrial Indoor Air Standards at VP-05 during the September 2018 sampling event and VP-06 during both the sampling events;
- Benzyl chloride both the VAP Residential and Commercial / Industrial Indoor Air Standards at VP-06 during the December 2018 sampling event;
- Carbon disulfide was detected above the VAP Residential Indoor Air Standard, but below the Commercial / Industrial Indoor Air Standard at VP-01 during the September 2018 sampling event;
- Carbon tetrachloride was detected above both the VAP Residential and Commercial / Industrial Indoor Air Standards at VP-03 during both sampling events and at VP-04, VP-05, and VP-06 during the September 2018 sampling event. Carbon tetrachloride was also detected above the VAP Residential Indoor Air Standard, but below the Commercial / Industrial Indoor Air Standard at VP-04 during the December 2018 sampling event;
- Chloroform was detected above both the VAP Residential and Commercial / Industrial Indoor Air Standards at VP-03 during both sampling events, VP-04 during the September sampling event, VP-05 during the September sampling event, and VP-08 during the December sampling event;
- Cumene was detected above the VAP Residential Indoor Air Standard, but below the Commercial / Industrial Indoor Air Standard at VP-06 during both sampling events;
- Cumene, cyclohexane, ethylbenzene, and total xylenes were detected above both the VAP Residential and Commercial / Industrial Indoor Air Standards at VP-06 during both sampling events;
- Hexane was detected above both the VAP Residential and Commercial / Industrial Indoor Air Standards at VP-06 during both sampling events and at VP-07 during the September sampling event. Hexane was also detected above the VAP Residential Indoor Air Standard, but below the Commercial / Industrial Indoor Air Standard at VP-07 during the December 2018 sampling event;
- Naphthalene was detected above both the VAP Residential and Commercial / Industrial Indoor Air Standards at VP-06 during the September sampling event;
- PCE and trichloroethene (TCE) were detected above both the VAP Residential and Commercial / Industrial Indoor Air Standards at VP-01, VP-03, VP-06, VP-07, and VP-08 during both sampling events. PCE and TCE were also detected above was detected above both the VAP Residential and Commercial / Industrial Indoor Air Standards at VP-02, VP-04, and VP-05 during the September sampling event;
- Trans-1,2-dichloroethene was detected above both the VAP Residential and Commercial / Industrial Indoor Air Standards at VP-01 during the September sampling event and at VP-07 and VP-08 during both sampling events. Trans-1,2-dichloroethene was also detected was detected above the VAP Residential Indoor Air Standard, but below the Commercial / Industrial Indoor Air Standard at VP-01 during the December sampling event; and,
- Vinyl chloride was detected above both the VAP Residential and Commercial / Industrial Indoor Air Standards at VP-06 during the September sampling event and at VP-07 and VP-08 during both sampling events.

MSG also used the U.S. EPA VISL Calculator to evaluate the soil vapor analytical results and identify if the detected VOCs pose a potential risk to indoor air via the vapor intrusion pathway. MSG entered the maximum concentration of each detected VOC compound from either sampling event into the VISL Calculator and identified the following:

- The calculated indoor air concentrations of 1,2,4-trimethylbenzene, carbon tetrachloride, chloroform, ethylbenzene, naphthalene, PCE, TCE, and vinyl chloride are above both their respective VAP Residential and Commercial / Industrial Indoor Air Standards;
- The calculated indoor air concentrations of 1,3-butadiene, benzene, benzyl chloride, hexane, and xylenes are above their VAP Residential Indoor Air Standard, but below their Commercial / Industrial Indoor Air Standard;
- The calculated cumulative carcinogenic risk and non-carcinogenic hazard quotients are above their respective target threshold risk and hazard values for both the residential and commercial receptors.

The VISL Calculator output for the soil vapor data is summarized in Table 3 and copies of the VISL Calculator spreadsheets are presented in Appendix C.

4.2.3 Sub-Slab Vapor Analytical Results

The attached Table 4 and Figure 6 present the analytical results of identified constituents in the collected sub-slab vapor samples, which are summarized as:

- 1,2,4-Trimethylbenzene was detected above the VAP Residential Indoor Air Standard, but below the Commercial / Industrial Indoor Air Standard at VP-10 and above both the VAP Residential and Commercial / Industrial Indoor Air Standards at VP-11;
- Benzene was detected above both the VAP Residential and Commercial / Industrial Indoor Air Standards at VP-09 and VP-11;
- PCE was detected above both the VAP Residential and Commercial / Industrial Indoor Air Standards at VP-09, VP-10, VP-11 and VP-12; and,
- TCE was detected above both the VAP Residential and Commercial / Industrial Indoor Air Standards at VP-09, VP-11 and VP-12 and above the VAP Residential Indoor Air Standard, but below the Commercial / Industrial Indoor Air Standard at VP-10.

MSG also used the U.S. EPA VISL Calculator to evaluate the sub-slab vapor analytical results and identify if the detected VOCs pose a potential risk to indoor air via the vapor intrusion pathway. MSG entered the maximum concentration of each detected VOC compound into the VISL Calculator and identified the following:

- The calculated indoor air concentrations of PCE and TCE are above both their respective VAP Residential and Commercial / Industrial Indoor Air Standards; and,
- The calculated cumulative carcinogenic risk and non-carcinogenic hazard quotients are above their respective target threshold risk and hazard values for both the residential and commercial receptors.

The VISL Calculator output for the sub-slab vapor data is summarized in Table 4 and copies of the VISL Calculator spreadsheets are presented in Appendix C.

4.2.4 Groundwater Analytical Results

VOCs were not detected above their respective laboratory method detection limits in the grab groundwater sample collected from GP-02.

4.3 Laboratory QA/QC Results

Laboratory QA/QC was evaluated by analyzing surrogate recoveries, Laboratory Control Samples (LCS) and Matrix Spike/Matrix Spike Duplicate (MS/MSD) samples for each sample delivery group (SDG) to evaluate the quality of the data reported by the laboratory. Following is a summary of MSG's review of the laboratory QA/QC report for the laboratory data packages submitted as part of this project (See Table 5). Copies of the laboratory reports are presented in Appendix B.

- The Chain-of-Custody forms were in good order;
- Samples arrived in good condition and within temperature limits;
- Samples were analyzed within hold times;
- LCS were in control; and,
- Method blanks were non-detect.

Based upon a review of the laboratory QA/QC documentation, MSG is of the opinion that the data generated as part of this Focused Phase II ESA are valid and representative of Site conditions.

5.0 SUMMARY AND CONCLUSIONS

Based on the results of the Focused Phase II ESA, we conclude the following:

- With the exception of a perched, discontinuous shallow groundwater zone at soil boring GP-02, shallow groundwater was not encountered in the overburden above the bedrock surface in any of the other soil borings advanced at the Site;
- The soil sample collected from GP-17 located south of the Site building is impacted with PCE above the VAP Residential, Commercial / Industrial, and Construction / Excavation Worker GNS. The soil analytical data further indicate that all other concentrations of detected VOCs are below their respective VAP GNS for Residential (unrestricted) use;
- The data indicate that soil vapor along the perimeter of the Site is impacted with one or more chlorinated VOCs above their respective VAP Residential and/or Commercial Indoor Air Standards at all sampling locations. MSG also used the U.S. EPA VISL Calculator to evaluate the soil vapor analytical results and identify if the detected VOCs pose a potential risk to indoor air via the vapor intrusion pathway.
 - The calculated indoor air concentrations of 1,2,4-trimethylbenzene, carbon tetrachloride, chloroform, ethylbenzene, naphthalene, PCE, TCE, and vinyl chloride are above both their respective VAP Residential and Commercial / Industrial Indoor Air Standards;
 - The calculated indoor air concentrations of 1,3-butadiene, benzene, benzyl chloride, hexane, and xylenes are above their VAP Residential Indoor Air Standard, but below their Commercial / Industrial Indoor Air Standard;
 - The calculated cumulative carcinogenic risk and non-carcinogenic hazard quotients are above their respective target threshold risk and hazard values for both the residential and commercial receptors.
- The data indicate that sub-slab vapor beneath the Site building is impacted with one or more chlorinated VOCs above their respective VAP Residential and/or Commercial Indoor Air Standards at all sampling locations. MSG also used the U.S. EPA VISL Calculator to evaluate the sub-slab vapor analytical results and identify if the detected VOCs pose a potential risk to indoor air via the vapor intrusion pathway.
 - The calculated indoor air concentrations of PCE and TCE are above both their respective VAP Residential and Commercial / Industrial Indoor Air Standards; and,
 - The calculated cumulative carcinogenic risk and non-carcinogenic hazard quotients are above their respective target threshold risk and hazard values for both the residential and commercial receptors.
- The combined soil and sub-slab vapor analytical results and calculated indoor air concentrations indicate that there is a vapor intrusion risk to indoor air from chlorinated VOCs for the Site building and potentially to surrounding adjacent buildings for both residential and commercial receptors.

6.0 BIBLIOGRAPHY

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United States Department of Agriculture, Natural Resources Conservation Service, Web Soil Survey website: <http://websoilsurvey.nrcs.usda.gov> (Provided soil types for the Site).

United States Department of Agriculture, et al. Soil Survey of Richland County, OH: 1980. (Obtained soil description for the Site).

USGS, 7.5-Minute topographic map for the Mansfield North, Richland County, OH quadrangle (dated 1982) and Mansfield South, Richland County, OH quadrangle (dated 1984).

TABLES



Table 1
Field Sampling Plan by Identified Area
Former Swan Cleaners
165 Park Avenue West, Mansfield, Ohio

Sample ID	Location	Justification	Laboratory Analysis ¹
Soil Borings			
GP-01 to GP-10 and GP16 to GP-22	Perimeter of Site	Evaluate soil for presence of chlorinated VOCs.	VOCs ¹
GP-11 to GP-15	Beneath the Site Building	Evaluate soil for presence of chlorinated VOCs.	VOCs ¹
Soil Vapor Points			
VP-01 to VP-08	Perimeter of Site	Evaluate the vapor intrusion pathway near adjacent off-Site receptors.	VOCs ²
Sub-Slab Vapor Points			
VP-09 to VP12	Beneath the Site Building	Evaluate the vapor intrusion pathway for the Site building.	VOCs ²

¹ VOCs by EPA Method 8260

² VOCs by Method TO-15

Table 2
Soil Sample Results
Former Swan Cleaners
165 Park Avenue West, Mansfield, Ohio

Soil Sample		SC-SB-GP-01 (2-4")										SC-SB-GP-02 (6-8")		SC-SB-GP-03 (6-8")		SC-SB-GP-04 (6-8")		SC-SB-GP-05 (2-4")	
Laboratory ID		18091141-01A										18091141-02A		18091141-03A		18091141-04A		18091141-05A	
Sample Date		09/26/18										09/26/18		09/26/18		09/26/18		09/26/18	
Identified Area																			
Constituent	CAS #	Units	Ohio VAP Residential GNS	Ohio VAP Const/Exc GNS	Ohio VAP Comm/Ind GNS	Analytical Method	Volatile Organic Compounds												
1,2,4-Trimethylbenzene	95-63-6	mg/kg	160	220	220	EPA 8260	15	0.0086	< 0.0057	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	
1,2-Dichloroethane	107-06-2	mg/kg	11	480	56	EPA 8260	< 0.029	< 0.0059	< 0.0057	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	
1,3,5-Trimethylbenzene	108-67-8	mg/kg	180	180	180	EPA 8260	6.1	< 0.0059	< 0.0057	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	
Acetone	67-64-1	mg/kg	110,000	110,000	110,000	EPA 8260	< 0.29	< 0.059	< 0.057	< 0.058	< 0.058	< 0.058	< 0.058	< 0.058	< 0.058	< 0.058	< 0.058	< 0.058	
Carbon disulfide	75-15-0	mg/kg	740	740	740	EPA 8260	< 0.029	< 0.0059	< 0.0057	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	
Carbon tetrachloride	56-23-5	mg/kg	15	460	79	EPA 8260	< 0.029	< 0.0059	8.2	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	
Chloroform	67-66-3	mg/kg	7.4	320	38	EPA 8260	< 0.029	< 0.0059	0.098	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	
cis-1,2-Dichloroethene	156-59-2	mg/kg	310	2,400	2,400	EPA 8260	< 0.029	0.022	< 0.0057	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	
Naphthalene	91-20-3	mg/kg	90	560	450	EPA 8260	< 0.029	< 0.0059	< 0.0057	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	
n-Propylbenzene	103-65-1	mg/kg	260	260	260	EPA 8260	0.12	< 0.0059	< 0.0057	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	
p-Isopropyltoluene	99-87-6	mg/kg	160	160	160	EPA 8260	0.14	< 0.0059	< 0.0057	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	
sec-Butylbenzene	135-98-8	mg/kg	140	140	140	EPA 8260	0.047	< 0.0059	< 0.0057	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	
Tetrachloroethene	127-18-4	mg/kg	170	170	170	EPA 8260	< 0.029	0.029	7.3	0.0062	0	0	0	0	0	0	0	0	
trans-1,2-Dichloroethene	156-60-5	mg/kg	370	1,700	1,700	EPA 8260	< 0.029	< 0.0059	< 0.0057	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	
Trichloroethene	79-01-6	mg/kg	11	17	51	EPA 8260	< 0.029	0.026	< 0.0057	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	

NS -- No Ohio VAP Standard available. Constituent is not a hazardous or petroleum-related substance as defined by the VAP statute (ORC 3746.01)
Standards in green are Ohio EPA VAP Supplemental Standards developed under technical assistance mg/Kg - milligram per kilogram (ppm)

Table 2
Soil Sample Results
Former Swan Cleaners
165 Park Avenue West, Mansfield, Ohio

Soil Sample		SC-SB-GP-11 (0-2')		SC-SB-GP-12 (2-4')		SC-SB-GP-13 (0-2')		SC-SB-GP-14 (0-2')		SC-SB-GP-15 (0-2')		
Laboratory ID		1812465-01A		1812465-02A		1812848-01A		1812848-02A		1812848-03A		
Sample Date		12/11/18		12/11/18		12/19/18		12/19/18		12/19/18		
Identified Area												
Constituent	CAS #	Units	Ohio VAP			Ohio VAP Const/Exc GNS	Ohio VAP Comm/Ind GNS	Analytical Method				
			Residential GNS									
Volatile Organic Compounds												
1,2,4-Trimethylbenzene	95-63-6	mg/kg	160		220		220	EPA 8260	< 0.0043	< 0.0045	< 0.0042	
1,2-Dichloroethane	107-06-2	mg/kg	11		480		56	EPA 8260	< 0.0043	< 0.0045	< 0.0042	< 0.0042
1,3,5-Trimethylbenzene	108-67-8	mg/kg	180		180		180	EPA 8260	< 0.0043	< 0.0045	< 0.0042	< 0.0042
Acetone	67-64-1	mg/kg	110,000		110,000		110,000	EPA 8260	0.05	< 0.045	< 0.042	< 0.042
Carbon disulfide	75-15-0	mg/kg	740		740		740	EPA 8260	< 0.0043	< 0.0045	< 0.0042	< 0.0042
Carbon tetrachloride	56-23-5	mg/kg	15		460		79	EPA 8260	< 0.0043	< 0.0045	< 0.0042	< 0.0042
Chloroform	67-66-3	mg/kg	7.4		320		38	EPA 8260	< 0.0043	< 0.0045	< 0.0042	< 0.0042
cis-1,2-Dichloroethene	156-59-2	mg/kg	310		2,400		2,400	EPA 8260	0.017	0.13	< 0.0042	< 0.0042
Naphthalene	91-20-3	mg/kg	90		560		450	EPA 8260	< 0.0043	< 0.0045	< 0.0042	< 0.0042
n-Propylbenzene	103-65-1	mg/kg	260		260		260	EPA 8260	< 0.0043	< 0.0045	< 0.0042	< 0.0042
p-Isopropyltoluene	99-87-6	mg/kg	160		160		160	EPA 8260	< 0.0043	< 0.0045	< 0.0042	< 0.0042
sec-Butylbenzene	135-98-8	mg/kg	140		140		140	EPA 8260	< 0.0043	< 0.0045	< 0.0042	< 0.0042
Tetrachloroethene	127-18-4	mg/kg	170		170		170	EPA 8260	21	0.43	0.013	0.014
trans-1,2-Dichloroethene	156-60-5	mg/kg	370		1,700		1,700	EPA 8260	< 0.0043	0.0053	< 0.0042	< 0.0042
Trichloroethene	79-01-6	mg/kg	11		17		51	EPA 8260	0.028	0.037	< 0.0042	< 0.0042

NS -- No Ohio VAP Standard available. Constituent is not a hazardous or petroleum-related substance as defined by the VAP statute (ORC 3746.01)
Standards in green are Ohio EPA VAP Supplemental Standards developed under technical assistance mg/Kg - milligram per kilogram (ppm)

Table 3
Soil Vapor Sample Results
Former Swan Cleaners
165 Park Avenue West, Mansfield, Ohio

Soil Vapor Sample Point										
Laboratory ID Sample Date					SC-V-VP-01		SC-V-VP-02		SC-V-VP-03	
					18091145-01 09/27/18	1812729-01A 12/19/18	18091145-02 09/27/18	1812729-02A 12/19/18	18091145-03 09/27/18	SC-V-VP-04 18091145-04 09/27/18 1812729-04A 12/19/18
Constituent	CAS #	Units	Ohio VAP	Ohio VAP	Analytical Method	Laboratory Analytical Results				
			Residential Indoor Air	Com/Ind. Indoor Air		IA-1				
Volatile Organic Compounds										
1,1,1-Trichloroethane	71-55-6	µg/m ³	5,200	22,000	EPA TO-15	<1,360	37.1	<1,360	<2.73	<27.3
1,1-Dichloroethane	75-34-3	µg/m ³	15	77	EPA TO-15	<1,010	40.5	<1,010	<2.02	<20.2
1,1-Dichloroethene	75-35-4	µg/m ³	210	880	EPA TO-15	<991	<19.8	<991	<1.98	<19.8
1,2,4-Trimethylbenzene	95-63-6	µg/m ³	7.3	31	EPA TO-15	<1,230	<24.6	<1,230	10.6	<24.6
1,3,5-Trimethylbenzene	108-67-8	µg/m ³	63	260	EPA TO-15	<1,230	<24.6	<1,230	2.9	<24.6
1,3-Butadiene	106-99-0	µg/m ³	0.81	4.1	EPA TO-15	<553	<11.1	<553	<1.11	<11.1
2-Butanone (MEK)	78-93-3	µg/m ³	5,200	22,000	EPA TO-15	<737	<14.7	<737	<14.7	<14.7
4-Ethyltoluene	622-96-8	µg/m ³	NS	NS	EPA TO-15	<1,230	<24.6	<1,230	<2.46	<24.6
Acetone	67-64-1	µg/m ³	32,000	140,000	EPA TO-15	<1,190	<23.8	<1,190	<23.8	7.29
Benzene	71-43-2	µg/m ³	3.1	16	EPA TO-15	<799	<16.0	<799	7.6	<16.0
Benzyl chloride	100-44-7	µg/m ³	0.5	2.5	EPA TO-15	<1,290	<25.9	<1,290	<25.9	<25.9
Carbon disulfide	75-15-0	µg/m ³	730	3,100	EPA TO-15	<1,290	<25.9	<1,290	<25.9	<25.9
Carbon tetrachloride	56-23-5	µg/m ³	4.1	20	EPA TO-15	825	30.5	<778	2.74	402
Chloroethane (ethyl chloride)	75-00-3	µg/m ³	10,000	44,000	EPA TO-15	<1,570	<31.5	<1,570	<3.15	87,800
Chloroform	67-66-3	µg/m ³	1.1	5.3	EPA TO-15	<660	<13.2	<660	<13.2	<13.2
Chloromethane	74-87-3	µg/m ³	94.0	390	EPA TO-15	<516	<10.3	<516	1.14	1,860
cis-1,2-Dichloroethene	156-59-2	µg/m ³	NS	NS	EPA TO-15	9,220	481	1,630	<1.98	<10.3
Cumene	98-82-8	µg/m ³	420	1,800	EPA TO-15	<1,230	<24.6	<1,230	<2.46	<19.8
Cyclohexane	110-82-7	µg/m ³	6,300	26,000	EPA TO-15	<861	<17.2	<861	<2.46	39.6
Dichlorodifluoromethane	75-71-8	µg/m ³	NA	NA	EPA TO-15	<1,240	<24.7	<1,240	61.3	<24.6
Ethyl acetate	141-78-6	µg/m ³	73	310	EPA TO-15	<901	<31.4	<901	<2.47	<17.2
Ethylbenzene	100-41-4	µg/m ³	9.7	49	EPA TO-15	<1,090	<21.7	<1,090	<18.0	28.7
Heptane	142-82-5	µg/m ³	NS	NS	EPA TO-15	<1,020	<20.5	<1,020	<21.7	<18.0
Hexane	110-54-3	µg/m ³	730	3,100	EPA TO-15	<881	<17.6	<881	91.8	<2.17
m,p-Xylene	179601-23-1	µg/m ³	NS	NS	EPA TO-15	<1,090	<21.7	<1,090	83.5	43.4
Naphthalene	91-20-3	µg/m ³	0.72	3.6	EPA TO-15	<524	<10.5	<524	15.9	75.4
o-Xylene	95-47-6	µg/m ³	NS	NS	EPA TO-15	<1,090	<21.7	<1,090	19.7	69.0
Propene	115-07-1	µg/m ³	NS	NS	EPA TO-15	<430	<8.61	<430	<10.5	<10.5
Tetrachloroethene	127-18-4	µg/m ³	42	180	EPA TO-15	3,730	189	61,200	<21.7	21.7
Toluene	108-88-3	µg/m ³	5,200	22,000	EPA TO-15	<942	<18.8	<942	95.2	1,530
trans-1,2-Dichloroethene	156-60-5	µg/m ³	63	260	EPA TO-15	1,820	90	<942	193,000	442
Trichloroethene	79-01-6	µg/m ³	2.1	8.8	EPA TO-15	2,740	169	<991	442	9.36
Vinyl chloride	75-01-4	µg/m ³	1.6	28	EPA TO-15	<639	<12.8	<639	<18.8	104
Xylene (Total)	1330-20-7	µg/m ³	100	440	EPA TO-15	<1,090	<43.4	<1,090	<19.8	<1.98
									14	<1.07
									172	<1.07
									<12.8	<1.28
									<43.4	<1.28
									91	<4.34

NS – No Ohio VAP Standard available. Constituent is not a hazardous or petroleum-related substance as defined by the VAP statute (ORC 3746.01)
Standards in green are Ohio EPA VAP Supplemental Standards developed under technical assistance
µg/m³ - microgram per cubic meter
Highlighted cell indicates constituent above one or more Ohio EPA VAP Indoor Air Standard
VI - vapor intrusion

Table 3
Soil Vapor Sample Results
Former Swan Cleaners
165 Park Avenue West, Mansfield, Ohio

Soil Vapor Sample Point												
Constituent		CAS #		Units		Ohio VAP		Analytical Method	Site Maximum Soil Gas Concentration	Calculated Indoor Air Concentration	Residential	
						Residential Indoor Air	Com/Ind. Indoor Air				VI Carcinogenic Risk	VI Haz
						Identified Area					CR	HC
Volatile Organic Compounds										VISL Calculator Screening Level		
1,1,1-Trichloroethane	71-55-6	µg/m³	5,200	22,000	EPA TO-15	37.1	1.11	No IUR	2.10E			
1,1-Dichloroethane	75-34-3	µg/m³	15	77	EPA TO-15	40.5	1.22	6.90E-07	No R			
1,1-Dichloroethene	75-35-4	µg/m³	210	880	EPA TO-15	360	10.8	No IUR	5.20E			
1,2,4-Trimethylbenzene	95-63-6	µg/m³	7.3	31	EPA TO-15	4,080	122	No IUR	1.7E+			
1,3,5-Trimethylbenzene	108-67-8	µg/m³	63	260	EPA TO-15	1,940	NA	NA	NA			
1,3-Butadiene	106-99-0	µg/m³	0.81	4.1	EPA TO-15	29.2	0.88	9.40E-06	4.2E-			
2-Butanone (MEK)	78-93-3	µg/m³	5,200	22,000	EPA TO-15	92.0	2.76	No IUR	5.3E-			
4-Ethyltoluene	622-96-8	µg/m³	NS	NS	EPA TO-15	1,250	NA	NA	NA			
Acetone	67-64-1	µg/m³	32,000	140,000	EPA TO-15	155	4.65	No IUR	1.4E-			
Benzene	71-43-2	µg/m³	3.1	16	EPA TO-15	207	6.21	1.70E-05	2.0E-			
Benzyl chloride	100-44-7	µg/m³	0.5	2.5	EPA TO-15	73.5	2.21	3.80E-05	2.1E+			
Carbon disulfide	75-15-0	µg/m³	730	3,100	EPA TO-15	825	24.8	No IUR	3.4E-			
Carbon tetrachloride	56-23-5	µg/m³	4.1	20	EPA TO-15	2,620,000	78,600	1.7E-01	7.5E+			
Chloroethane (ethyl chloride)	75-00-3	µg/m³	10,000	44,000	EPA TO-15	29.0	0.870	No IUR	8.3E-			
Chloroform	67-66-3	µg/m³	1.1	5.3	EPA TO-15	204,000	6,120	5.00E-02	6.0E+			
Chloromethane	74-87-3	µg/m³	94.0	390	EPA TO-15	1.67	0.0501	No IUR	5.3E-			
cis-1,2-Dichloroethene	156-59-2	µg/m³	NS	NS	EPA TO-15	114,000	NA	NA	NA			
Cumene	98-82-8	µg/m³	420	1,800	EPA TO-15	1,040	31.2	No IUR	7.5E-			
Cyclohexane	110-82-7	µg/m³	6,300	26,000	EPA TO-15	32,600	978	No IUR	1.6E-			
Dichlorodifluoromethane	75-71-8	µg/m³	NA	NA	EPA TO-15	2.87	0.0861	No IUR	8.3E-			
Ethyl acetate	141-78-6	µg/m³	73	310	EPA TO-15	31.4	0.942	No IUR	1.3E-			
Ethylbenzene	100-41-4	µg/m³	9.7	49	EPA TO-15	1,670	50.1	5E-05	4.8E-			
Heptane	142-82-5	µg/m³	NS	NS	EPA TO-15	63,900	NA	NA	NA			
Hexane	110-54-3	µg/m³	730	3,100	EPA TO-15	52,600	1,580	No IUR	2.2E+			
m,p-Xylene	179601-23-1	µg/m³	NS	NS	EPA TO-15	2,260	NA	NA	NA			
Naphthalene	91-20-3	µg/m³	0.72	3.6	EPA TO-15	2,340	70.2	8.5E-04	2.2E+			
o-Xylene	95-47-6	µg/m³	NS	NS	EPA TO-15	1,450	43.5	No IUR	4.2E-			
Propene	115-07-1	µg/m³	NS	NS	EPA TO-15	1,730	51.9	No IUR	1.7E-			
Tetrachloroethene	127-18-4	µg/m³	42	180	EPA TO-15	5,690,000	171,000	1.6E-02	4.1E+			
Toluene	108-88-3	µg/m³	5,200	22,000	EPA TO-15	268	8.04	No IUR	1.5E-			
trans-1,2-Dichloroethene	156-60-5	µg/m³	63	260	EPA TO-15	13,100	NA	NA	NA			
Trichloroethene	79-01-6	µg/m³	2.1	8.8	EPA TO-15	147,000	4,410	9E-03	2E+			
Vinyl chloride	75-01-4	µg/m³	1.6	28	EPA TO-15	53,900	1,620	1E-02	2E+			
Xylene (Total)	1330-20-7	µg/m³	100	440	EPA TO-15	3,710	111	No IUR	1E+			
							Cumulative Risk					
							3E-01		7E+			
							1E-05		1E+			

NS – No Ohio VAP Standard available. Constituent is not a hazardous or petroleum-related substa

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Standards in green are Ohio EPA VAP Supplemental Standards developed under technical assista

µg/m³ - microgram per cubic meter

Highlighted cell indicates constituent above one or more Ohio EPA VAP Indoor Air Standard

VI - vapor intrusion

Table 4
Sub-Slab Vapor Sample Results
Former Swan Cleaners
165 Park Avenue West, Mansfield, Ohio

Sub-Slab Vapor Sample Point							SC-V-VP-09	SC-V-VP-10	SC-V-VP-11	SC-V-VP-12	Site Map Soil Concentration
Constituent	CAS #	Units	Ohio VAP Residential Indoor Air	Ohio VAP Com/Ind. Indoor Air	Analytical Method	Laboratory Analytical Results	1812729-09A	1812729-10A	1812729-11A	1812729-12A	
							12/19/18	12/19/18	12/19/18	12/19/18	
							IA-1				
							Identified Area				
Volatile Organic Compounds											
1,1,1-Trichloroethane	71-55-6	µg/m³	5,200	22,000	EPA TO-15		< 27.3	< 2.73	36.0	34.4	
1,2,4-Trimethylbenzene	95-63-6	µg/m³	7.3	31	EPA TO-15		< 24.6	15.9	32.4	< 24.6	
1,3,5-Trimethylbenzene	108-67-8	µg/m³	63	260	EPA TO-15		< 24.6	5.7	< 24.6	< 24.6	
2-Butanone (MEK)	78-93-3	µg/m³	5,200	22,000	EPA TO-15		< 14.7	< 1.47	77.0	< 14.7	
4-Ethyltoluene	622-96-8	µg/m³	NS	NS	EPA TO-15		< 24.6	3.74	< 24.6	< 24.6	
Acetone	67-64-1	µg/m³	32,000	140,000	EPA TO-15		57.5	10.5	896 E	256	
Benzene	71-43-2	µg/m³	3.1	16	EPA TO-15		17.9	< 1.60	17.3	< 16.0	
cis-1,2-Dichloroethene	156-59-2	µg/m³	NS	NS	EPA TO-15		< 19.8	2.38	1,700	157	
Dichlorodifluoromethane	75-71-8	µg/m³	NA	NA	EPA TO-15		< 24.7	3.07	< 24.7	< 24.7	
m,p-Xylene	179601-23-1	µg/m³	NS	NS	EPA TO-15		23.0	2.91	22.6	< 21.7	
Tetrachloroethene	127-18-4	µg/m³	42	180	EPA TO-15		16,700	46.7	153,000	5,090	
Toluene	108-88-3	µg/m³	5,200	22,000	EPA TO-15		30.5	3.5	30.1	< 18.8	
trans-1,2-Dichloroethene	156-60-5	µg/m³	63	260	EPA TO-15		< 19.8	< 1.98	42.4	< 19.8	
Trichloroethene	79-01-6	µg/m³	2.1	8.8	EPA TO-15		107	7.09	3,760	197	
Xylene (Total)	1330-20-7	µg/m³	100	440	EPA TO-15		23	2.91	22.6	<43.4	

NS -- No Ohio VAP Standard available. Constituent is not a hazardous or petroleum-related substance as defined by the VAP statute (ORC 3746.01)

Standards in green are Ohio EPA VAP Supplemental Standards developed under technical assistance

µg/m³ - microgram per cubic meter

Highlighted cell indicates constituent above one or more Ohio EPA VAP Indoor Air Standard

VI - vapor intrusion

VISL - Vapor Intrusion Screening Level

CR - Carcinogenic Risk

HQ - Hazard Quotient for Non-Carcinogens

IUR - Inhalation Unit Risk

NA - Not Applicable (constituent not included in VISL Calculator program)

Table 5
Quality Assurance / Quality Control
Former Swan Cleaners
165 Park Avenue West, Mansfield, Ohio

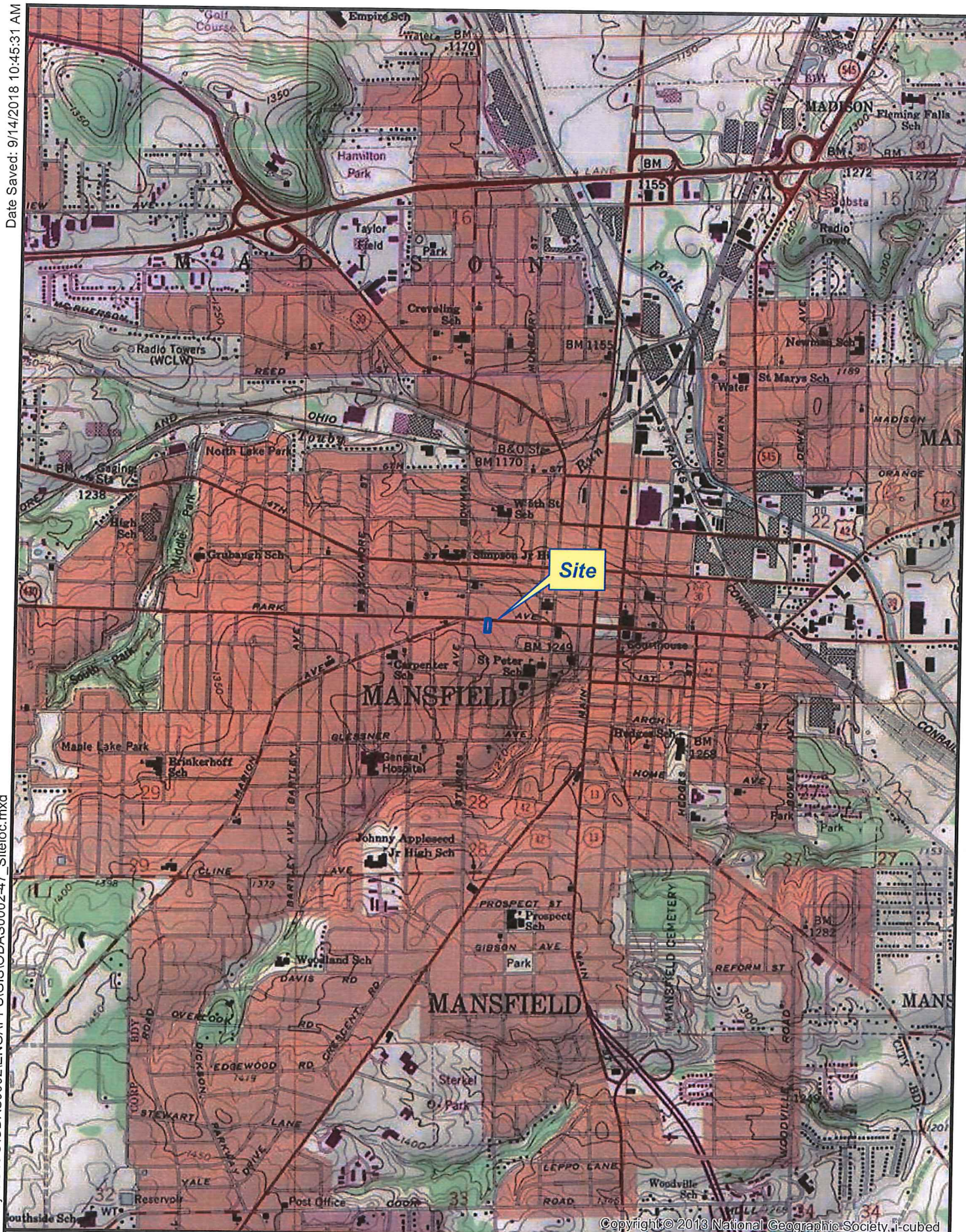
Lab	ALS	ALS	ALS	ALS	ALS
SDG	18091141	18091145	1812465	1812729	1812848
Collection Date(s)	09/26/18	09/27/18	12/11/18	12/19/18	12/19/18
Collected by	MSG	MSG	MSG	MSG	MSG
Matrix	Soil & Groundwater	Air (Soil Gas)	Soil	Air (Soil Gas and Sub-Slab Vapor)	Soil
Chain of Custody	Ok	Ok	Ok	Ok	Ok
Cooler Temperature	3.0 °C	N/A	2.6 °C	N/A	3.6 °C
Sample Preservation	Ok	Ok	Ok	Ok	Ok
Custody Seals	Yes	No	No	No	Yes
Bottles	Lab Provided	Lab Provided	Lab Provided	Lab Provided	Lab Provided
Case Narrative	The analyses requested were analyzed according to Ohio VAP requirements. QC sample results for this data met laboratory specifications.	The analyses requested were analyzed according to Ohio VAP requirements. QC sample results for this data met laboratory specifications.	The analyses requested were analyzed according to Ohio VAP requirements. QC sample results for this data met laboratory specifications.	The analyses requested were analyzed according to Ohio VAP requirements. QC sample results for this data met laboratory specifications.	The analyses requested were analyzed according to Ohio VAP requirements. QC sample results for this data met laboratory specifications.
Lab Statement of Quality	VAP Certified	VAP Certified	VAP Certified	VAP Certified	VAP Certified
Holding Times met?	Yes	Yes	Yes	Yes	Yes
Proper Methods	Yes	Yes	Yes	Yes	Yes
Reporting Limits acceptable	Yes	Yes	Yes	Yes	Yes
Surrogate recoveries within limits	Yes	Yes	Yes	Yes	Yes
Blanks	Method Blanks all non-detect	Method Blanks all non-detect	Method Blanks all non-detect	Method Blanks all non-detect	Method Blanks all non-detect
Duplicates	None	No	No	No	No
LCS within limits?	In Control	In Control	In Control	In Control	In Control
MS/MSD within limits?	RPD above laboratory control limit in the MSD for several VOCs (Batch R157114 and R157151). However, the LCS was in control and the MSD samples were not client generated.	N/A	Yes	N/A	Yes
MS/MSD client generated?	No	N/A	No	N/A	No
Overall Quality	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable

MB - Method Blank
ND - Non Detect
FB - Field Blank
RPD - Relative Percent Difference

LCS - Laboratory Control Sample
MS/MSD - Matrix Spike / Matrix Spike Duplicate

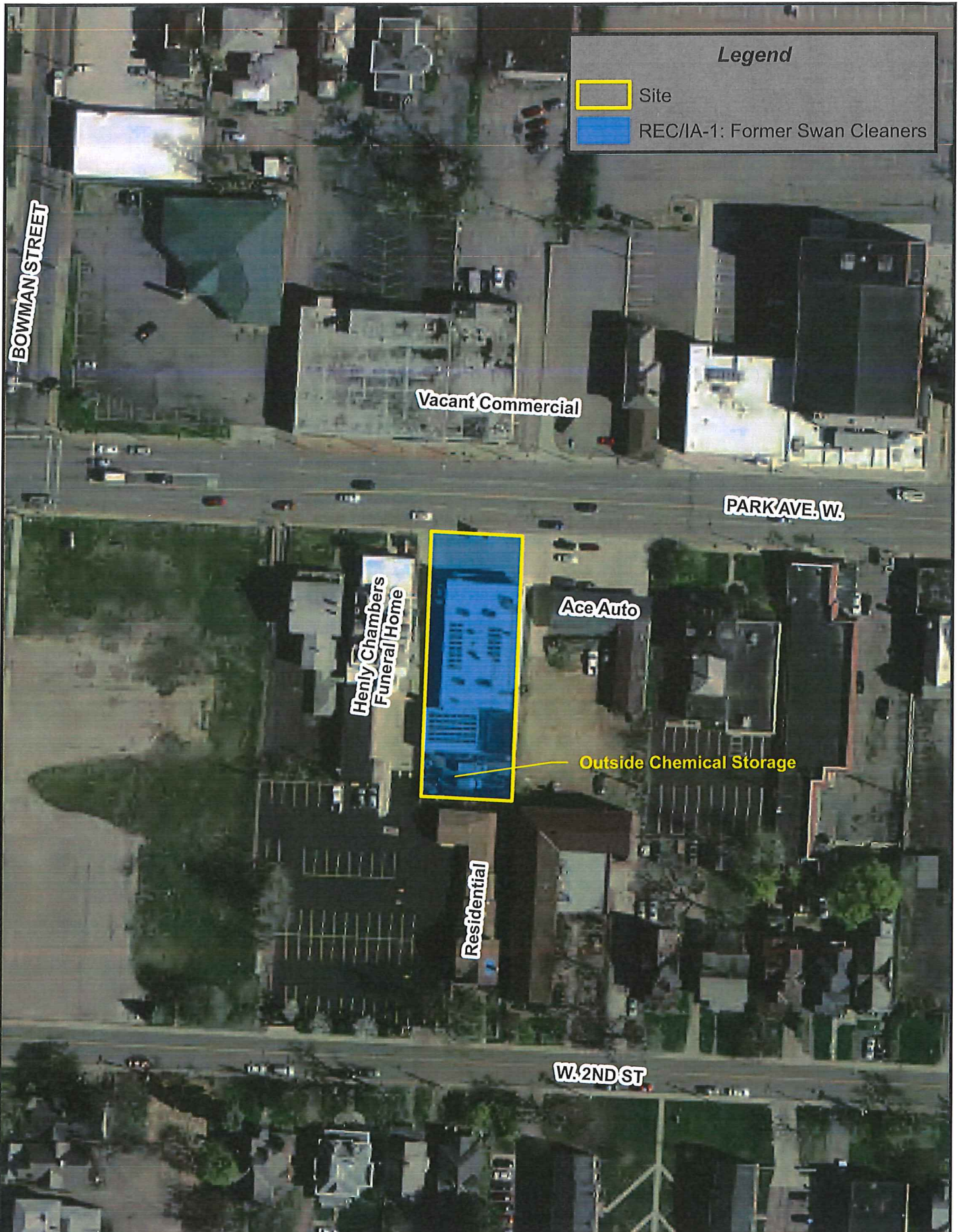
FIGURES





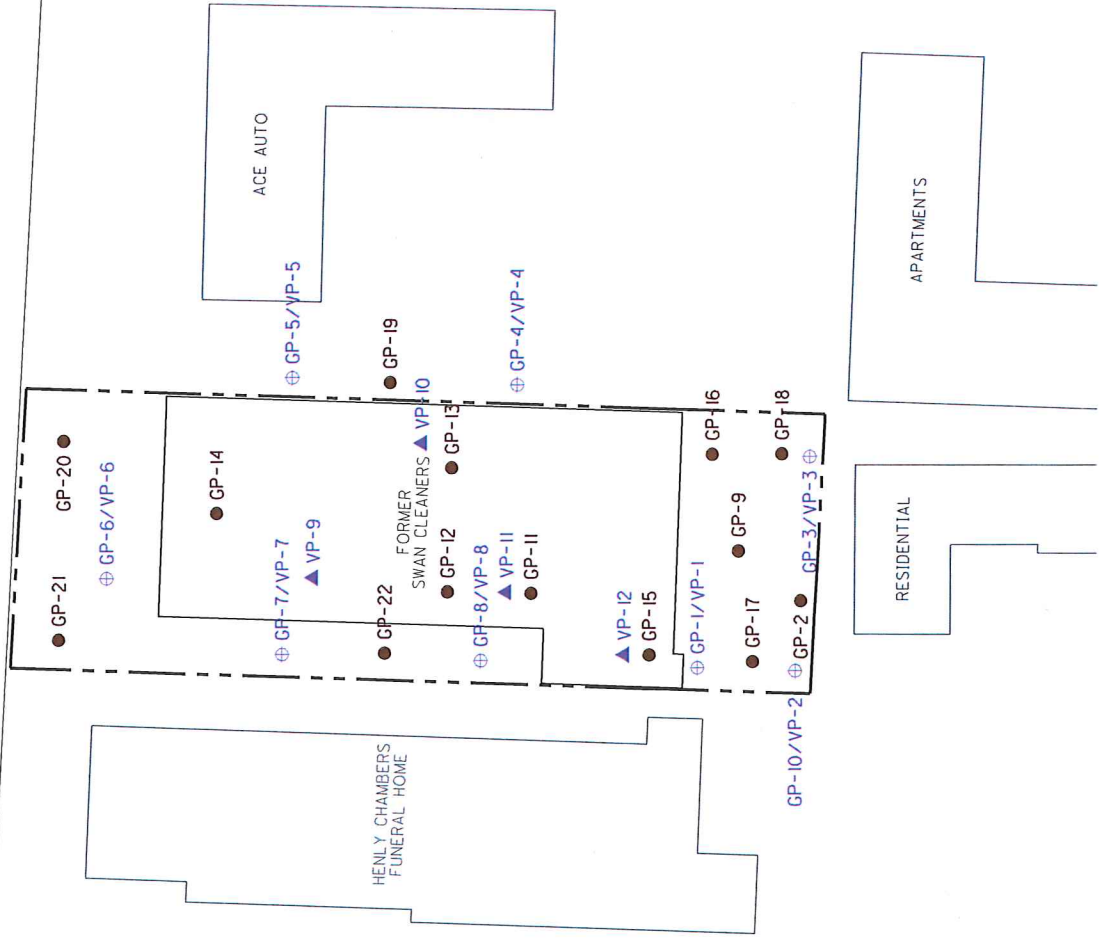
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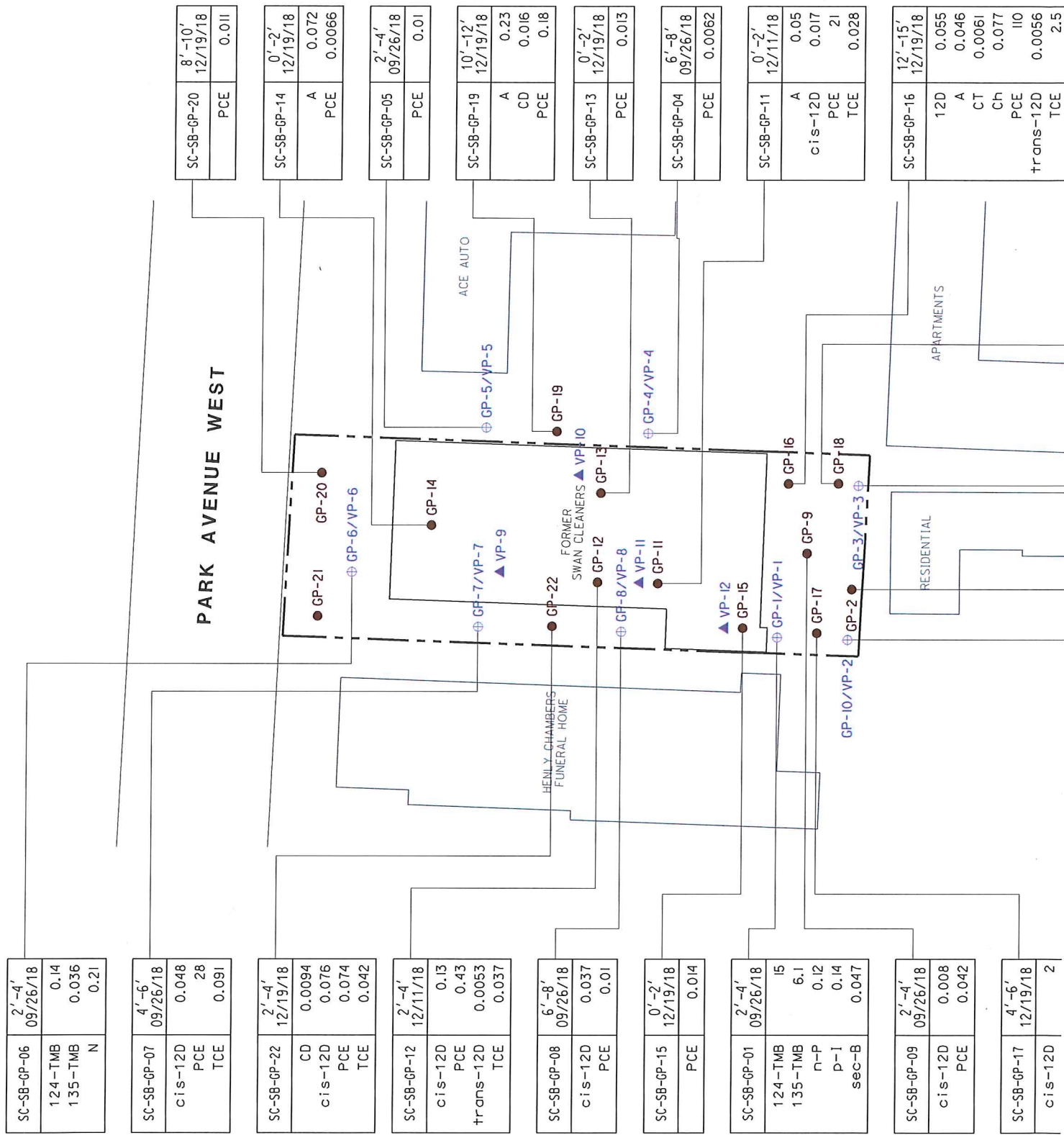
Figure 1: Site Location Map
Former Swan Cleaners
165 Park Avenue West
Mansfield, Ohio



**Figure 2: Site Layout Map
Former Swan Cleaners
165 Park Avenue West
Mansfield, Ohio**

PARK AVENUE WEST





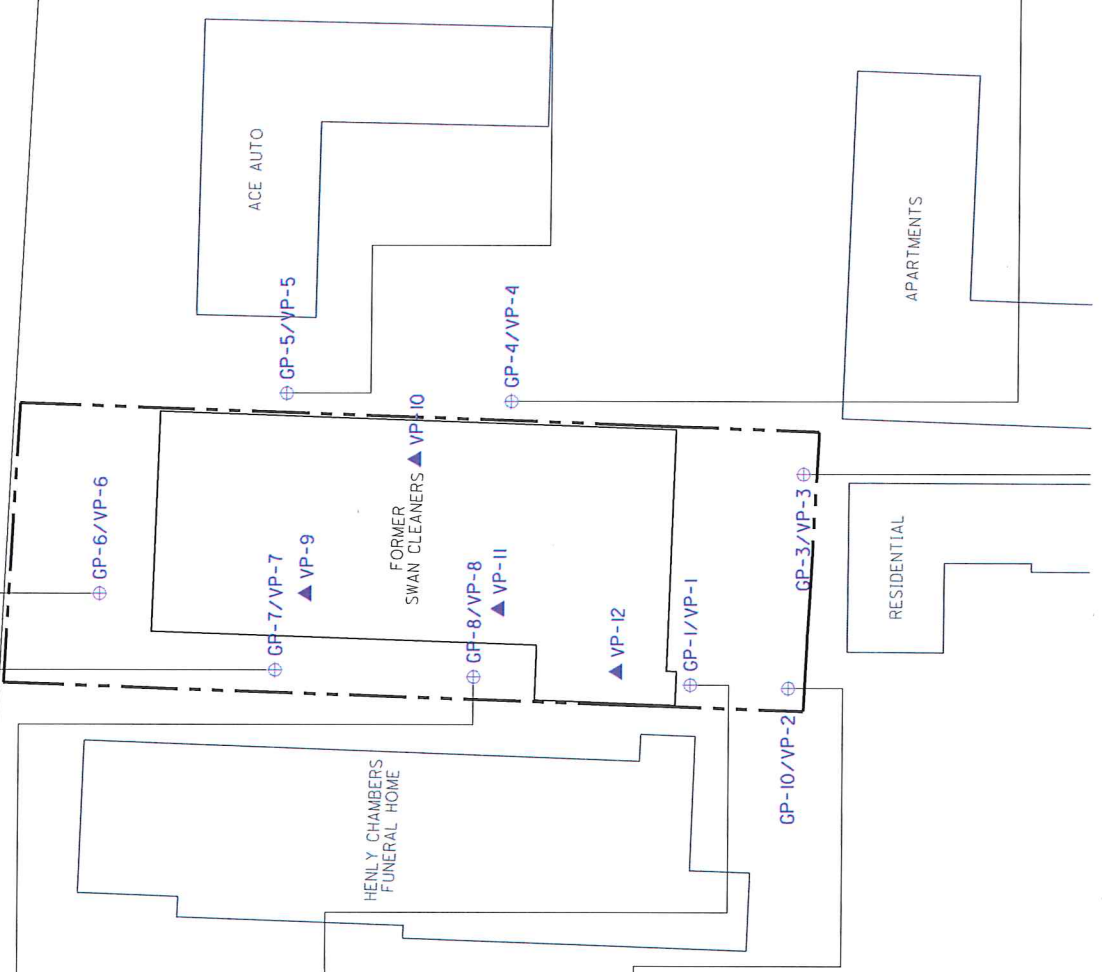
SC-V-VP-07	09/27/18	12/19/18
11-De	<1,980	360
cis-12D	98,800	93,300
Cy	5,51	3,790
Hep	<2,050	454
Hex	4,790	1,290
PCE	17,200	776
trans-12D	2,020	2,030
TCE	36,800	11,300
VC	20,100	20,100

SC-V-VP-08	09/27/18	12/19/18
11-De	<9,910	241
MEK	<7,370	92
Ch	<4,880	87.9
cis-12D	114,000	5,670
PCE	5,690,000	160,000
trans-12D	13,100	733
TCE	147,000	5,100
VC	53,900	337

SC-V-VP-01	09/27/18	12/19/18
111-T	<1,360	37.1
11-Da	<1,010	40.5
CD	825	30.5
cis-12D	9,220	481
EA	<901	31.4
PCE	3,730	189
trans-12D	1,820	90
TCE	2,740	169

SC-V-VP-02	09/27/18	12/19/18
124-TMB	<1,230	10.6
135-TMB	<1,230	2.9
A	<1,190	6.46
B	<799	7.6
CD	<778	2.74
cis-12D	1,630	<1.98
Cy	<861	2.51
E	<1,090	4.91
Hep	<1,020	5.61
Hex	<881	15.9
mp-X	<1,090	19.7
O-X	<1,090	7.9
P	<430	10.8
PCE	61,200	7.26
T	<942	23.9
TCE	3,790	<1.07

PARK AVENUE WEST

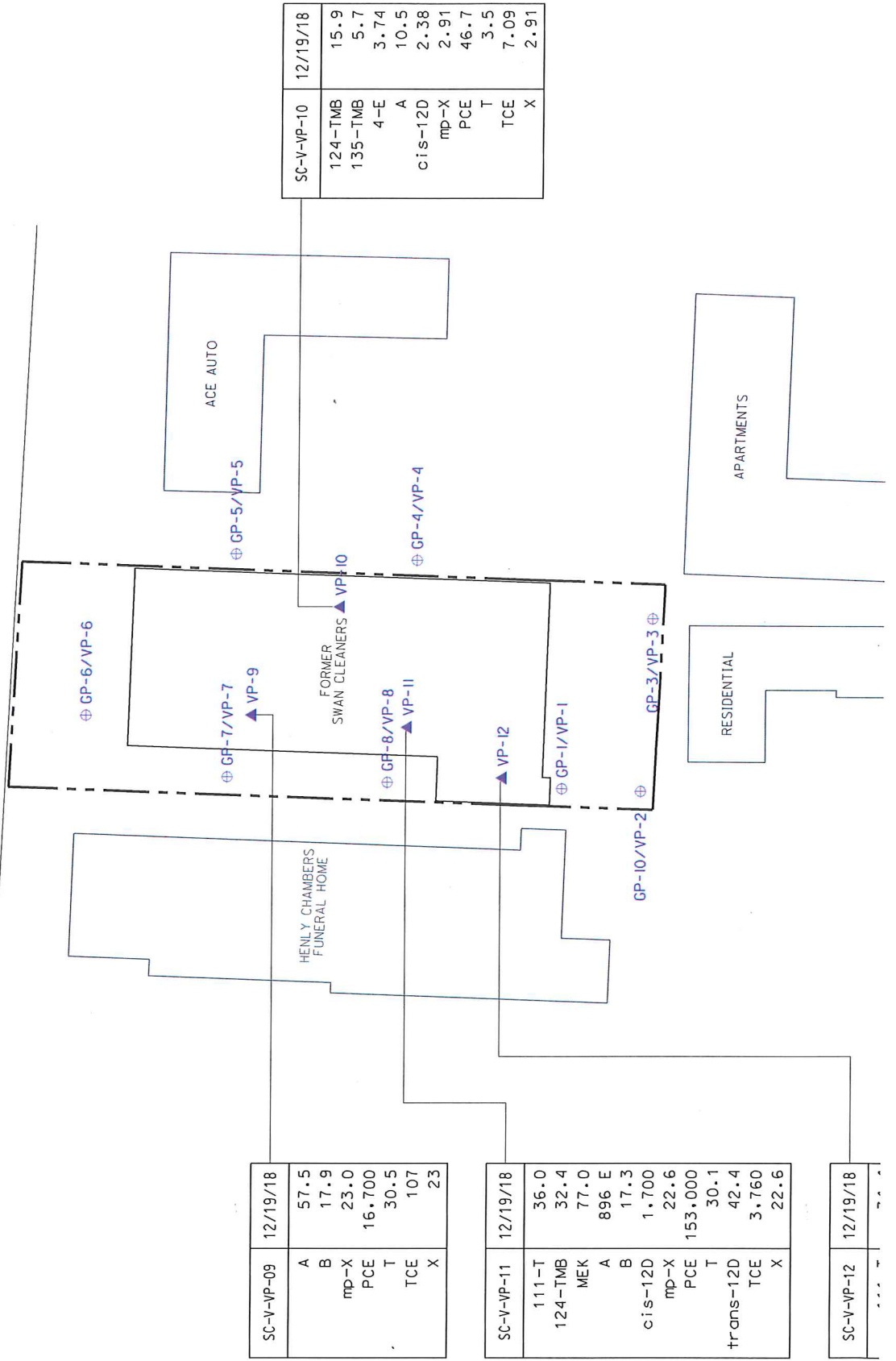


SC-V-VP-06	09/27/18	12/19/18
124-TMB	4,080	2,34
135-TMB	1,940	<1.23
MEK	16.5	<14.
4-E	1,250	92
A	155	<23.
B	207	18
BC	<25.9	73.
CD	104	24.
CT	789	<31.
EC	22.4	2
cis-12D	140	14
Cu	1,040	88
Cy	27,600	32,60
E	1,670	1,07
Hep	42,300	63,90
Hex	31,200	52,60
mp-X	2,260	54
N	2,340	<10.
O-X	1,450	48
PCE	380	14
T	268	36.
trans-12D	41.6	41.
TCE	550	27
VC	128	<12.
X	3,710	1,00

SC-V-VP-05	09/27/18	12/19/18
13-B	29.2	<1.
A	24.7	12.
B	18.8	<1.8
CD	204	2.9
CT	327	<3.1
Ch	27.8	<0.97
Cy	<17.2	3.4
Hep	35.2	6.
Hex	66.3	5.
mp-X	65.1	<2.1
P	1,730	<0.88
PCE	1,470	<3.2
T	85.5	<1.8
TCE	81.1	1.
X	65.1	<4.2

SC-V-VP-04	09/27/18	12/19/18
A	<23.9	7.2

PARK AVENUE WEST



APPENDIX A BORING LOGS



[illegible]



Project Number: ODAS0002-48

Project Name: Former Swan Cleaners

Site Location: 165 Park Avenue W., Mansfield, OH

Client: Ohio EPA

MSG Personnel: R. Woods

Approved By: Matt Pesci

Contractor: Envirocore

Driller: James Beatty

Drilling Method: Direct Push Geoprobe

Drill Rig: Geoprobe 6600 - Truck Mounted

Start/End Date: 9/26/2018

Boring Depth: 10 feet

Northing: NA

Easting: NA

Ground Surface Elev.: NA

Depth (ft.)	Elev. (ft.)	Graphic Log	Description	Number	Type	FID/PID (ppm)	Recovery (in.)	Remarks
			<u>ASPHALT</u>					
			<u>FILL</u> , gravel, sand, cinders					
			light brown <u>CLAY</u> , with some silt, trace fine gravel, trace sand, grey mottling, moist, medium stiff	MC-01	DP	0.2	17	
			@ 2.0 feet; becomes damp					
				MC-02	DP	0.5	17	
5			@ 5.0 feet; becomes wet, soft					
				MC-03	DP	0.5	17	
				MC-04	DP	0.6	17	Soil sample from 6' to 8' submitted for laboratory analysis
10				MC-05	DP	0.5	17	
			End of Soil Boring = 10 feet					
15								



Project Number: ODAS0002-48

Project Name: Former Swan Cleaners

Site Location: 165 Park Avenue W., Mansfield, OH

Client: Ohio EPA

MSG Personnel: R. Woods

Contractor: Envirocore

Driller: James Beatty

Drilling Method: Direct Push Geoprobe

Drill Rig: Geoprobe 6600 - Truck Mounted

Total Depth: 10 feet

MW Installation Date: 9/26/2018

Northing: NA

Easting: NA

Ground Surface Elev.: NA

Depth (ft)	Soil Vapor Sample Location	Elev. (ft.)	Graphic Log	Description of Cuttings	Number	Type	FID/PID (ppm)	Recovery (in.)	Remarks
5 <									



Project Number: ODAS0002-48

Project Name: Former Swan Cleaners

Site Location: 165 Park Avenue W., Mansfield, OH

Client: Ohio EPA

MSG Personnel: R. Woods

Contractor: Envirocore

Driller: James Beatty

Drilling Method: Direct Push Geoprobe

Drill Rig: Geoprobe 6600 - Truck Mounted

Total Depth: 6 feet

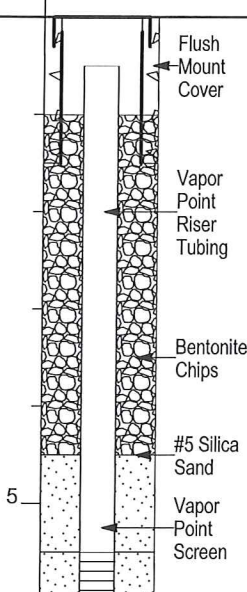
MW Installation Date: 9/26/2018

Northing: NA

Easting: NA

Ground Surface Elev.: NA

Depth (ft)	Soil Vapor Sample Location	Elev. (ft.)	Graphic Log	Description of Cuttings	Number	Type	FID/PID (ppm)	Recovery (in.)	Remarks
				<u>CONCRETE</u>					
				light brown <u>CLAY</u> , with some silt, trace fine gravel, trace sand, grey mottling, damp, medium stiff	MC-01	DP	102	24	Soil sample from 2' to 4' submitted for laboratory analysis
				@ 2.17 feet; grey, moist, soft, strong odor	MC-02	DP	366	24	
				@ 5.0 feet; becomes light brown, with trace grey mottling, damp, medium stiff, no odor	MC-03	DP	15.1	24	
				Ended of boring @ 6 feet due to proximity of storm sewer drain Soil Vapor Screen Installation Depth = feet					



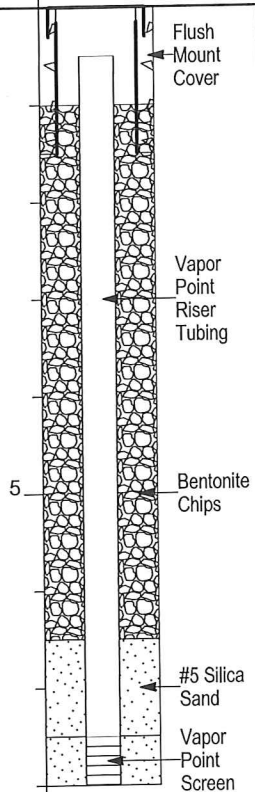


Project Number: ODAS0002-48
 Project Name: Former Swan Cleaners
 Site Location: 165 Park Avenue W., Mansfield, OH
 Client: Ohio EPA
 MSG Personnel: R. Woods

Contractor: Envirocore
 Driller: James Beatty
 Drilling Method: Direct Push Geoprobe
 Drill Rig: Geoprobe 6600 - Truck Mounted
 Total Depth: 10 feet

MW Installation Date: 9/26/2018
 Northing: NA
 Easting: NA
 Ground Surface Elev.: NA

Depth (ft.)	Soil Vapor Sample Location	Elev. (ft.)	Graphic Log	Description of Cuttings	Number	Type	FID/PID (ppm)	Recovery (in.)	Remarks
				ASPHALT					
				CONCRETE					
				light brown CLAY, with some silt, trace fine gravel, trace sand, grey mottling, moist, medium stiff	MC-01	DP	2.8	17	
				@ 2.33 feet; damp, stiff	MC-02	DP	20.8	17	
					MC-03	DP	54.8	12	
					MC-04	DP	224	12	Soil sample from 6' to 8' submitted for laboratory analysis
				@ 8.67 feet; with one-inch sand and gravel seam	MC-05	DP	19.5	12	
				Soil Vapor Screen Installation Depth = feet					





Project Number: ODAS0002-48

Project Name: Former Swan Cleaners

Site Location: 165 Park Avenue W., Mansfield, OH

Client: Ohio EPA

MSG Personnel: R. Woods

Approved By: Matt Pesci

Contractor: Envirocore

Driller: James Beatty

Drilling Method: Direct Push Geoprobe

Drill Rig: Geoprobe 6600 - Truck Mounted

Start/End Date: 9/26/2018

Boring Depth: 10 feet

Northing: NA

Easting: NA

Ground Surface Elev.: NA

Depth (ft)	Elev. (ft.)	Graphic Log	Description	Number	Type	FID/PID (ppm)	Recovery (in.)	Remarks
			<u>ASPHALT</u>					
			<u>FILL</u> , gravel, sand, cinders, wet					
			light brown <u>CLAY</u> , with some silt, trace fine gravel, trace sand, grey mottling, moist, medium stiff @ 1.25 feet; with trace mottling, damp	MC-01	DP	2.8	17	Soil sample from 2' to 4' submitted for laboratory analysis
			@ 3.67 feet; becomes stiff	MC-02	DP	9.1	17	
5				MC-03	DP	5.3	17	
				MC-04	DP	1.6	17	
10				MC-05	DP	1.3	17	
			End of Soil Boring = 10 feet					
15								



Project Number: ODAS0002-48

Project Name: Former Swan Cleaners

Site Location: 165 Park Avenue W., Mansfield, OH

Client: Ohio EPA

MSG Personnel: R. Woods

Contractor: Envirocore

Driller: James Beatty

Drilling Method: Direct Push Geoprobe

Drill Rig: Geoprobe 6600 - Truck Mounted

Total Depth: 10 feet

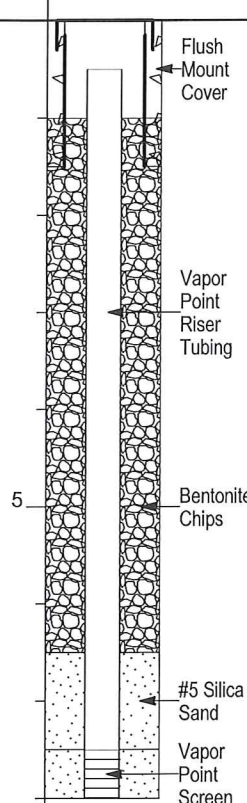
MW Installation Date: 9/26/2018

Northing: NA

Easting: NA

Ground Surface Elev.: NA

Depth (ft.)	Soil Vapor Sample Location	Elev. (ft.)	Graphic Log	Description of Cuttings	Number	Type	FID/PID (ppm)	Recovery (in.)	Remarks
				<u>ASPHALT</u>					
				<u>FILL</u> , gravel, sand, cinders					
				light brown <u>CLAY</u> , with some silt, trace fine gravel, trace sand, grey mottling, moist, stiff	MC-01	DP	1.4	22	
					MC-02	DP	5.6	22	
				@ 4.83 feet; becomes damp, stiff, with trace gray mottling	MC-03	DP	6.2	22	Soil sample from 4' to 6' submitted for laboratory analysis
					MC-04	DP	5.8	22	
					MC-05	DP	0.9	22	
				Soil Vapor Screen Installation Depth = feet					





Project Number: ODAS0002-48

Project Name: Former Swan Cleaners

Site Location: 165 Park Avenue W., Mansfield, OH

Client: Ohio EPA

MSG Personnel: J. Thornburg

Approved By: Matt Pesci

Contractor: The Mannik & Smith Group, Inc.

Driller: John Thornburg

Drilling Method: Direct Push

Drill Rig: Hand-Driven Geoprobe



Start/End Date: 12/11/2018

Boring Depth: 2 feet

Northing: NA

Easting: NA

Ground Surface Elev.: NA

Depth (ft.)	Elev. (ft.)	Graphic Log	Description	Number	Type	FID/PID (ppm)	Recovery (in.)	Remarks
			<u>CONCRETE</u>	MC-01	DP	0.5	24	Soil sample from 0' to 2' submitted for laboratory analysis
			brown <u>CLAY</u> , with some silt, moist					
			End of Soil Boring = 2 feet					
5								
10								
15								



Project Number: ODAS0002-48

Project Name: Former Swan Cleaners

Site Location: 165 Park Avenue W., Mansfield, OH

Client: Ohio EPA

MSG Personnel: J. Thornburg

Approved By: Matt Pesci

Contractor: The Mannik & Smith Group, Inc.

Driller: John Thornburg

Drilling Method: Direct Push

Drill Rig: Hand-Driven Geoprobe



Start/End Date: 12/11/2018

Boring Depth: 4 feet

Northing: NA

Easting: NA

Ground Surface Elev.: NA

Depth (ft)	Elev. (ft.)	Graphic Log	Description	Number	Type	FID/PID (ppm)	Recovery (in.)	Remarks
			<u>CONCRETE</u>					
			brown <u>CLAY</u> , with some silt, moist	MC-01	DP	0.1	20	Soil sample from 2' to 4' submitted for laboratory analysis
				MC-02	DP	0.4	18	
5			End of Soil Boring = 4 feet					
10								
15								



Project Number: ODAS0002-48

Project Name: Former Swan Cleaners

Site Location: 165 Park Avenue W., Mansfield, OH

Client: Ohio EPA

MSG Personnel: Matt Pesci

Approved By:

Contractor: The Mannik & Smith Group, Inc.

Driller: Matt Pesci

Drilling Method: Hand Auger

Drill Rig: Hand Auger


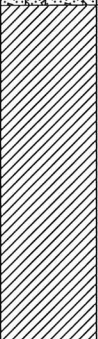
Start/End Date: 12/19/2018

Boring Depth: 4 feet

Northing: NA

Easting: NA

Ground Surface Elev.: NA

Depth (ft)	Elev. (ft.)	Graphic Log	Description	Number	Type	FID/PID (ppm)	Recovery (in.)	Remarks
			CONCRETE					Soil sample from 0' to 2' submitted for laboratory analysis
			brown <u>CLAY</u> , medium stiff, with trace silt, damp	HA-01	HA	1.1	24	
				HA-02	HA	0.5	24	
5			End of Soil Boring = 4 feet					
10								
15								



Project Number: ODAS0002-48

Project Name: Former Swan Cleaners

Site Location: 165 Park Avenue W., Mansfield, OH

Client: Ohio EPA

MSG Personnel: Matt Pesci

Approved By:

Contractor: The Mannik & Smith Group, Inc.

Driller: Matt Pesci

Drilling Method: Hand Auger

Drill Rig: Hand Auger



Start/End Date: 12/19/2018

Boring Depth: 4 feet

Northing: NA

Easting: NA

Ground Surface Elev.: NA

Depth (ft)	Elev. (ft.)	Graphic Log	Description	Number	Type	FID/PID (ppm)	Recovery (in.)	Remarks
			<u>CONCRETE</u>					Soil sample from 0' to 2' submitted for laboratory analysis
			brown <u>CLAY</u> , medium stiff, with trace silt, damp	HA-01	HA	2.4	24	
				HA-02	HA	0.3	24	
5			End of Soil Boring = 4 feet					
10								
15								



Project Number: ODAS0002-48

Project Name: Former Swan Cleaners

Site Location: 165 Park Avenue W., Mansfield, OH

Client: Ohio EPA

MSG Personnel: Matt Pesci

Approved By:

Contractor: The Mannik & Smith Group, Inc.

Driller: Matt Pesci

Drilling Method: Hand Auger

Drill Rig: Hand Auger



Start/End Date: 12/19/2018

Boring Depth: 4 feet

Northing: NA

Easting: NA

Ground Surface Elev.: NA

Depth (ft.)	Elev. (ft.)	Graphic Log	Description	Number	Type	FID/PID (ppm)	Recovery (in.)	Remarks
			<u>CONCRETE</u>					Soil sample from 0' to 2' submitted for laboratory analysis
			brown <u>CLAY</u> , medium stiff, with trace silt, damp	HA-01	HA	1.6	24	
				HA-02	HA	0.5	24	
5			End of Soil Boring = 4 feet					
10								
15								



Project Number: ODAS0002-48

Project Name: Former Swan Cleaners

Site Location: 165 Park Avenue W., Mansfield, OH

Client: Ohio EPA

MSG Personnel: Haley Frager

Approved By: Matt Pesci

Contractor: Envirocore

Driller: Craig P.

Drilling Method: Direct Push Geoprobe

Drill Rig: Geoprobe 7800 - Truck Mounted

Start/End Date: 12/19/2018

Boring Depth: 15 feet

Northing: NA

Easting: NA

Ground Surface Elev.: NA

Depth (ft)	Elev. (ft.)	Graphic Log	Description	Number	Type	FID/PID (ppm)	Recovery (in.)	Remarks
			<u>ASPHALT</u>					
			<u>FILL</u> , gravel, sand, cinders	MC-01	DP	7.9	18	
			brown <u>CLAY</u> , with some silt, trace fine gravel, trace sand, grey mottling, moist, stiff	MC-02	DP	13.8	24	
5			@ 4.0 feet; becomes light brown	MC-03	DP	38.5	24	
				MC-04	DP	37.8	24	
10				MC-05	DP	37.2	24	
			@ 10.5 feet; becomes brown, dry	MC-06	DP	117	24	
			@ 13.0 feet; sand seam	MC-07	DP	209	18	Soil sample from 12' to 15' submitted for laboratory analysis
15			Refusal on bedrock @ 15.0 feet					
			End of Soil Boring = 15 feet					
20								



Project Number: ODAS0002-48

Project Name: Former Swan Cleaners

Site Location: 165 Park Avenue W., Mansfield, OH

Client: Ohio EPA

MSG Personnel: Haley Frager

Approved By: Matt Pesci

Contractor: Envirocore

Driller: Craig P.

Drilling Method: Direct Push Geoprobe

Drill Rig: Geoprobe 7800 - Truck Mounted

Start/End Date: 12/19/2018

Boring Depth: 13 feet

Northing: NA

Easting: NA

Ground Surface Elev.: NA

Depth (ft)	Elev. (ft.)	Graphic Log	Description	Number	Type	FID/PID (ppm)	Recovery (in.)	Remarks
			<u>ASPHALT</u>					
			<u>FILL</u> , gravel, sand, cinders	MC-01	DP	20.0	18	
			brown <u>CLAY</u> , with some silt, trace fine gravel, trace sand, grey mottling, moist, stiff	MC-02	DP	31.3	24	
5				MC-03	DP	385	24	Soil sample from 4' to 6' submitted for laboratory analysis
			@ 6.5 feet; becomes light brown, dry	MC-04	DP	76.8	24	
10				MC-05	DP	370	24	
			@ 10.0 feet; becomes brown, very stiff	MC-06	DP	63.5	24	
			Refusal on bedrock @ 13.0 feet	MC-07	DP	11.0	12	
15			End of Soil Boring = 13 feet					
20								



Project Number: ODAS0002-48

Project Name: Former Swan Cleaners

Site Location: 165 Park Avenue W., Mansfield, OH

Client: Ohio EPA

MSG Personnel: Haley Frager

Approved By: Matt Pesci

Contractor: Envirocore

Driller: Craig P.

Drilling Method: Direct Push Geoprobe

Drill Rig: Geoprobe 7800 - Truck Mounted




Start/End Date: 12/19/2018

Boring Depth: 13.5 feet

Northing: NA

Easting: NA

Ground Surface Elev.: NA

Depth (ft.)	Elev. (ft.)	Graphic Log	Description	Number	Type	FID/PID (ppm)	Recovery (in.)	Remarks
			<u>ASPHALT</u>	MC-01	DP	3.2	18	Soil sample from 12' to 15' submitted for laboratory analysis
			<u>FILL</u> , gravel, sand, cinder					
			light brown <u>CLAY</u> , with some silt, trace fine gravel, trace sand, gray mottling, moist, stiff	MC-02	DP	7.5	24	
5			@ 4.5 feet; becomes brown, dry	MC-03	DP	10.6	24	
			@ 7.0 feet; sand seam	MC-04	DP	23.8	24	
			@ 9.0 feet; sand seam	MC-05	DP	10.7	24	
10				MC-06	DP	22.0	24	
				MC-07	DP	62.9	18	
15			Refusal on bedrock @ 15.0 feet					
			End of Soil Boring = 13.5 feet					
20								



Project Number: ODAS0002-48

Project Name: Former Swan Cleaners

Site Location: 165 Park Avenue W., Mansfield, OH

Client: Ohio EPA

MSG Personnel: Haley Frager

Approved By: Matt Pesci

Contractor: Envirocore

Driller: Craig P.

Drilling Method: Direct Push Geoprobe

Drill Rig: Geoprobe 7800 - Truck Mounted

Start/End Date: 12/19/2018

Boring Depth: 12 feet

Northing: NA

Easting: NA

Ground Surface Elev.: NA

Depth (ft)	Elev. (ft.)	Graphic Log	Description	Number	Type	FID/PID (ppm)	Recovery (in.)	Remarks
			ASPHALT					
			FILL, sand, cinder	MC-01	DP	1.9	18	
			light brown CLAY, with some silt, trace fine gravel, trace sand, grey mottling, moist, stiff	MC-02	DP	1.8	24	
5				MC-03	DP	0.9	24	
			@ 6.5 feet; becomes brown, with grey mottling, moist, stiff	MC-04	DP	0.8	24	
			@ 8.0 feet; thin shale layer	MC-05	DP	4.2	24	
10			@ 11.0 feet; becomes gray, with brown mottling, moist, stiff	MC-06	DP	4.8	24	Soil sample from 10' to 12' submitted for laboratory analysis
			Refusal on bedrock @ 12.0 feet					
			End of Soil Boring = 12 feet					
15								



Project Number: ODAS0002-48

Project Name: Former Swan Cleaners

Site Location: 165 Park Avenue W., Mansfield, OH

Client: Ohio EPA

MSG Personnel: Haley Frager

Approved By: Matt Pesci

Contractor: Envirocore

Driller: Craig P.

Drilling Method: Direct Push Geoprobe

Drill Rig: Geoprobe 7800 - Truck Mounted

Start/End Date: 12/19/2018

Boring Depth: 10.5 feet

Northing: NA

Easting: NA

Ground Surface Elev.: NA

Depth (ft)	Elev. (ft.)	Graphic Log	Description	Number	Type	FID/PID (ppm)	Recovery (in.)	Remarks
			ASPHALT					
			FILL, sand, cinder	MC-01	DP	1.0	18	
			light brown CLAY, with some silt, trace fine gravel, trace sand, brown mottling, moist, stiff	MC-02	DP	0.0	24	
5				MC-03	DP	1.7	24	
			@7.5 feet; becomes dry, very stiff	MC-04	DP	0.0	24	
10				MC-05	DP	6.9	24	Soil sample from 8' to 10' submitted for laboratory analysis
			Refusal on bedrock @ 10.5 feet	MC-06	DP	0.0	6	
			End of Soil Boring = 10.5 feet					
15								



Project Number: ODAS0002-48

Project Name: Former Swan Cleaners

Site Location: 165 Park Avenue W., Mansfield, OH

Client: Ohio EPA

MSG Personnel: Haley Frager

Approved By: Matt Pesci

Contractor: Envirocore

Driller: Craig P.

Drilling Method: Direct Push Geoprobe

Drill Rig: Geoprobe 7800 - Truck Mounted

Start/End Date: 12/19/2018

Boring Depth: 11 feet

Northing: NA

Easting: NA

Ground Surface Elev.: NA

Depth (ft)	Elev. (ft.)	Graphic Log	Description	Number	Type	FID/PID (ppm)	Recovery (in.)	Remarks
			ASPHALT	MC-01	DP	0.0	20	Soil sample from 2' to 4' submitted for laboratory analysis
			FILL, concrete	MC-02	DP	130	24	
			light brown CLAY, with some silt, trace fine gravel, trace sand, brown mottling, moist, stiff	MC-03	DP	38.5	24	
5				MC-04	DP	62.5	24	
				MC-05	DP	55.8	24	
10			@10.5 feet; sand seam	MC-06	DP	23.8	12	
			Refusal on bedrock at 11.0 feet End of Soil Boring = 11 feet					
15								

APPENDIX B
LABORATORY REPORTS





11-Oct-2018

Matt Pesci
The Mannik & Smith Group
1800 Indian Wood Circle
Maumee, OH 43537

Tel: (419) 891-2222
Fax: 419-891-1595

Re: Mob Order #MS19-04 Swan Cleaners- Mansfield; PN.: ODAS0 Work Order: **18091141**

Dear Matt,

ALS Environmental received 11 samples on 28-Sep-2018 10:40 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 42.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Rob Nieman

Electronically approved by: Rob Nieman

Rob Nieman
Project Manager

ADDRESS 4388 Glendale Milford Rd Cincinnati, OH 45242- | PHONE (513) 733-5336 | FAX (513) 733-5347

ALS GROUP USA, CORP. Part of the ALS Group An ALS Limited Company

Environmental

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

ALS Environmental

Date: 11-Oct-18

Client: The Mannik & Smith Group
Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; PN.: OD
Work Order: 18091141

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
18091141-01	SC-SB-GP-01	Soil		9/26/2018 09:15	9/28/2018 10:40	<input type="checkbox"/>
18091141-02	SC-SB-GP-02	Soil		9/26/2018 09:50	9/28/2018 10:40	<input type="checkbox"/>
18091141-03	SC-SB-GP-03	Soil		9/26/2018 10:10	9/28/2018 10:40	<input type="checkbox"/>
18091141-04	SC-SB-GP-04	Soil		9/26/2018 10:30	9/28/2018 10:40	<input type="checkbox"/>
18091141-05	SC-SB-GP-05	Soil		9/26/2018 10:55	9/28/2018 10:40	<input type="checkbox"/>
18091141-06	SC-SB-GP-06	Soil		9/26/2018 11:15	9/28/2018 10:40	<input type="checkbox"/>
18091141-07	SC-SB-GP-08	Soil		9/26/2018 11:50	9/28/2018 10:40	<input type="checkbox"/>
18091141-08	SC-SB-GP-07	Soil		9/26/2018 12:15	9/28/2018 10:40	<input type="checkbox"/>
18091141-09	SC-SB-GP-09	Soil		9/26/2018 13:15	9/28/2018 10:40	<input type="checkbox"/>
18091141-10	SC-SB-GP-10	Soil		9/26/2018 13:45	9/28/2018 10:40	<input type="checkbox"/>
18091141-11	SC-GW-GP-02	Water		9/26/2018 12:25	9/28/2018 10:40	<input type="checkbox"/>

ALS Environmental

Date: 11-Oct-18

Client: The Mannik & Smith Group
Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; PN.: OD
Work Order: 18091141

Case Narrative

The analyses requested were analyzed according to Ohio Voluntary Action Program requirements. Affidavits are available upon request.

The analytical data provided relates directly to the samples received by ALS Laboratory Group and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

ALS Environmental

Date: 11-Oct-18

Client: The Mannik & Smith Group

Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; PN.:

Work Order: 18091141

Sample ID: SC-SB-GP-01

Lab ID: 18091141-01

Collection Date: 9/26/2018 09:15 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE						
Moisture	13		SM2540B	% of sample	1	Analyst: CS 10/2/2018
VOLATILE ORGANIC COMPOUNDS						
			SW8260B			Analyst: LAK
1,1,1,2-Tetrachloroethane	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
1,1,1-Trichloroethane	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
1,1,2,2-Tetrachloroethane	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
1,1,2-Trichloroethane	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
1,1-Dichloroethane	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
1,1-Dichloroethene	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
1,1-Dichloropropene	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
1,2,3-Trichlorobenzene	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
1,2,3-Trichloropropane	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
1,2,4-Trichlorobenzene	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
1,2,4-Trimethylbenzene	15,000		720	µg/Kg-dry	125	10/3/2018 01:51 PM
1,2-Dibromo-3-chloropropane	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
1,2-Dibromoethane	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
1,2-Dichlorobenzene	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
1,2-Dichloroethane	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
1,2-Dichloropropane	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
1,3,5-Trimethylbenzene	6,100		720	µg/Kg-dry	125	10/3/2018 01:51 PM
1,3-Dichlorobenzene	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
1,3-Dichloropropane	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
1,4-Dichlorobenzene	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
2,2-Dichloropropane	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
2-Butanone	ND		290	µg/Kg-dry	5	10/2/2018 02:44 PM
2-Chlorotoluene	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
2-Hexanone	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
4-Chlorotoluene	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
4-Methyl-2-pentanone	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
Acetone	ND		290	µg/Kg-dry	5	10/2/2018 02:44 PM
Benzene	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
Bromobenzene	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
Bromochloromethane	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
Bromodichloromethane	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
Bromoform	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
Bromomethane	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
Carbon disulfide	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
Carbon tetrachloride	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
Chlorobenzene	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM

Note:

ALS Environmental

Date: 11-Oct-18

Client: The Mannik & Smith Group

Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; PN.:

Work Order: 18091141

Sample ID: SC-SB-GP-01

Lab ID: 18091141-01

Collection Date: 9/26/2018 09:15 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroethane	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
Chloroform	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
Chloromethane	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
cis-1,2-Dichloroethene	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
cis-1,3-Dichloropropene	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
Dibromochloromethane	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
Dibromomethane	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
Dichlorodifluoromethane	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
Ethylbenzene	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
Hexachlorobutadiene	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
Isopropylbenzene	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
m,p-Xylene	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
Methyl tert-butyl ether	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
Methylene chloride	ND		110	µg/Kg-dry	5	10/2/2018 02:44 PM
Naphthalene	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
n-Butylbenzene	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
n-Propylbenzene	120		29	µg/Kg-dry	5	10/2/2018 02:44 PM
o-Xylene	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
p-Isopropyltoluene	140		29	µg/Kg-dry	5	10/2/2018 02:44 PM
sec-Butylbenzene	47		29	µg/Kg-dry	5	10/2/2018 02:44 PM
Styrene	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
tert-Butylbenzene	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
Tetrachloroethene	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
Toluene	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
trans-1,2-Dichloroethene	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
trans-1,3-Dichloropropene	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
Trichloroethene	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
Trichlorofluoromethane	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
Vinyl chloride	ND		29	µg/Kg-dry	5	10/2/2018 02:44 PM
Xylenes, Total	ND		57	µg/Kg-dry	5	10/2/2018 02:44 PM
Surr: 4-Bromofluorobenzene	122		62.7-159	%REC	5	10/2/2018 02:44 PM
Surr: Dibromofluoromethane	105		67.3-136	%REC	5	10/2/2018 02:44 PM
Surr: Toluene-d8	95.4		83-124	%REC	5	10/2/2018 02:44 PM

Note:

ALS Environmental

Date: 11-Oct-18

Client: The Mannik & Smith Group

Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; PN.:

Work Order: 18091141

Sample ID: SC-SB-GP-02

Lab ID: 18091141-02

Collection Date: 9/26/2018 09:50 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE						
Moisture	16		SM2540B	% of sample	1	Analyst: CS 10/2/2018
VOLATILE ORGANIC COMPOUNDS						
			SW8260B			Analyst: LAK
1,1,1,2-Tetrachloroethane	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
1,1,1-Trichloroethane	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
1,1,2,2-Tetrachloroethane	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
1,1,2-Trichloroethane	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
1,1-Dichloroethane	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
1,1-Dichloroethene	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
1,1-Dichloropropene	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
1,2,3-Trichlorobenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
1,2,3-Trichloropropane	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
1,2,4-Trichlorobenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
1,2,4-Trimethylbenzene	8.6		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
1,2-Dibromo-3-chloropropane	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
1,2-Dibromoethane	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
1,2-Dichlorobenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
1,2-Dichloroethane	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
1,2-Dichloropropane	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
1,3,5-Trimethylbenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
1,3-Dichlorobenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
1,3-Dichloropropane	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
1,4-Dichlorobenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
2,2-Dichloropropane	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
2-Butanone	ND		59	µg/Kg-dry	1	10/2/2018 03:07 PM
2-Chlorotoluene	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
2-Hexanone	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
4-Chlorotoluene	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
4-Methyl-2-pentanone	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
Acetone	ND		59	µg/Kg-dry	1	10/2/2018 03:07 PM
Benzene	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
Bromobenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
Bromochloromethane	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
Bromodichloromethane	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
Bromoform	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
Bromomethane	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
Carbon disulfide	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
Carbon tetrachloride	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
Chlorobenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM

Note:

ALS Environmental

Date: 11-Oct-18

Client: The Mannik & Smith Group

Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; PN.:

Work Order: 18091141

Sample ID: SC-SB-GP-02

Lab ID: 18091141-02

Collection Date: 9/26/2018 09:50 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroethane	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
Chloroform	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
Chloromethane	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
cis-1,2-Dichloroethene	22		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
cis-1,3-Dichloropropene	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
Dibromochloromethane	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
Dibromomethane	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
Dichlorodifluoromethane	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
Ethylbenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
Hexachlorobutadiene	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
Isopropylbenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
m,p-Xylene	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
Methyl tert-butyl ether	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
Methylene chloride	ND		24	µg/Kg-dry	1	10/2/2018 03:07 PM
Naphthalene	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
n-Butylbenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
n-Propylbenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
o-Xylene	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
p-Isopropyltoluene	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
sec-Butylbenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
Styrene	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
tert-Butylbenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
Tetrachloroethene	29		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
Toluene	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
trans-1,2-Dichloroethene	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
trans-1,3-Dichloropropene	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
Trichloroethene	26		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
Trichlorofluoromethane	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
Vinyl chloride	ND		5.9	µg/Kg-dry	1	10/2/2018 03:07 PM
Xylenes, Total	ND		12	µg/Kg-dry	1	10/2/2018 03:07 PM
Surr: 4-Bromofluorobenzene	93.6		62.7-159	%REC	1	10/2/2018 03:07 PM
Surr: Dibromofluoromethane	108		67.3-136	%REC	1	10/2/2018 03:07 PM
Surr: Toluene-d8	94.4		83-124	%REC	1	10/2/2018 03:07 PM

Note:

ALS Environmental

Date: 11-Oct-18

Client: The Mannik & Smith Group

Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; PN.:

Work Order: 18091141

Sample ID: SC-SB-GP-03

Lab ID: 18091141-03

Collection Date: 9/26/2018 10:10 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE						
Moisture	13		SM2540B	% of sample	1	Analyst: CS 10/2/2018
VOLATILE ORGANIC COMPOUNDS						
			SW8260B			Analyst: LAK
1,1,1,2-Tetrachloroethane	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
1,1,1-Trichloroethane	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
1,1,2,2-Tetrachloroethane	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
1,1,2-Trichloroethane	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
1,1-Dichloroethane	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
1,1-Dichloroethene	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
1,1-Dichloropropene	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
1,2,3-Trichlorobenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
1,2,3-Trichloropropane	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
1,2,4-Trichlorobenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
1,2,4-Trimethylbenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
1,2-Dibromo-3-chloropropane	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
1,2-Dibromoethane	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
1,2-Dichlorobenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
1,2-Dichloroethane	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
1,2-Dichloropropane	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
1,3,5-Trimethylbenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
1,3-Dichlorobenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
1,3-Dichloropropane	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
1,4-Dichlorobenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
2,2-Dichloropropane	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
2-Butanone	ND		57	µg/Kg-dry	1	10/2/2018 03:30 PM
2-Chlorotoluene	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
2-Hexanone	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
4-Chlorotoluene	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
4-Methyl-2-pentanone	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
Acetone	ND		57	µg/Kg-dry	1	10/2/2018 03:30 PM
Benzene	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
Bromobenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
Bromochloromethane	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
Bromodichloromethane	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
Bromoform	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
Bromomethane	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
Carbon disulfide	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
Carbon tetrachloride	8,200		710	µg/Kg-dry	125	10/3/2018 02:14 PM
Chlorobenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM

Note:

ALS Environmental

Date: 11-Oct-18

Client: The Mannik & Smith Group

Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; PN.:

Work Order: 18091141

Sample ID: SC-SB-GP-03

Lab ID: 18091141-03

Collection Date: 9/26/2018 10:10 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroethane	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
Chloroform	98		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
Chloromethane	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
cis-1,2-Dichloroethene	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
cis-1,3-Dichloropropene	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
Dibromochloromethane	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
Dibromomethane	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
Dichlorodifluoromethane	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
Ethylbenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
Hexachlorobutadiene	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
Isopropylbenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
m,p-Xylene	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
Methyl tert-butyl ether	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
Methylene chloride	ND		23	µg/Kg-dry	1	10/2/2018 03:30 PM
Naphthalene	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
n-Butylbenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
n-Propylbenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
o-Xylene	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
p-Isopropyltoluene	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
sec-Butylbenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
Styrene	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
tert-Butylbenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
Tetrachloroethene	7,300		710	µg/Kg-dry	125	10/3/2018 02:14 PM
Toluene	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
trans-1,2-Dichloroethene	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
trans-1,3-Dichloropropene	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
Trichloroethene	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
Trichlorofluoromethane	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
Vinyl chloride	ND		5.7	µg/Kg-dry	1	10/2/2018 03:30 PM
Xylenes, Total	ND		11	µg/Kg-dry	1	10/2/2018 03:30 PM
Surr: 4-Bromofluorobenzene	90.9		62.7-159	%REC	1	10/2/2018 03:30 PM
Surr: Dibromofluoromethane	92.6		67.3-136	%REC	1	10/2/2018 03:30 PM
Surr: Toluene-d8	98.2		83-124	%REC	1	10/2/2018 03:30 PM

Note:

ALS Environmental

Date: 11-Oct-18

Client: The Mannik & Smith Group

Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; PN.:

Work Order: 18091141

Sample ID: SC-SB-GP-04

Lab ID: 18091141-04

Collection Date: 9/26/2018 10:30 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE						
Moisture	14		SM2540B	% of sample	1	Analyst: CS 10/2/2018
VOLATILE ORGANIC COMPOUNDS						
			SW8260B			Analyst: LAK
1,1,1,2-Tetrachloroethane	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
1,1,1-Trichloroethane	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
1,1,2,2-Tetrachloroethane	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
1,1,2-Trichloroethane	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
1,1-Dichloroethane	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
1,1-Dichloroethene	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
1,1-Dichloropropene	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
1,2,3-Trichlorobenzene	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
1,2,3-Trichloropropane	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
1,2,4-Trichlorobenzene	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
1,2,4-Trimethylbenzene	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
1,2-Dibromo-3-chloropropane	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
1,2-Dibromoethane	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
1,2-Dichlorobenzene	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
1,2-Dichloroethane	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
1,2-Dichloropropane	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
1,3,5-Trimethylbenzene	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
1,3-Dichlorobenzene	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
1,3-Dichloropropane	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
1,4-Dichlorobenzene	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
2,2-Dichloropropane	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
2-Butanone	ND		58	µg/Kg-dry	1	10/2/2018 03:53 PM
2-Chlorotoluene	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
2-Hexanone	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
4-Chlorotoluene	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
4-Methyl-2-pentanone	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
Acetone	ND		58	µg/Kg-dry	1	10/2/2018 03:53 PM
Benzene	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
Bromobenzene	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
Bromochloromethane	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
Bromodichloromethane	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
Bromoform	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
Bromomethane	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
Carbon disulfide	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
Carbon tetrachloride	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
Chlorobenzene	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM

Note:

ALS Environmental

Date: 11-Oct-18

Client: The Mannik & Smith Group

Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; PN.:

Work Order: 18091141

Sample ID: SC-SB-GP-04

Lab ID: 18091141-04

Collection Date: 9/26/2018 10:30 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroethane	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
Chloroform	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
Chloromethane	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
cis-1,2-Dichloroethene	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
cis-1,3-Dichloropropene	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
Dibromochloromethane	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
Dibromomethane	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
Dichlorodifluoromethane	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
Ethylbenzene	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
Hexachlorobutadiene	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
Isopropylbenzene	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
m,p-Xylene	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
Methyl tert-butyl ether	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
Methylene chloride	ND		23	µg/Kg-dry	1	10/2/2018 03:53 PM
Naphthalene	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
n-Butylbenzene	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
n-Propylbenzene	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
o-Xylene	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
p-Isopropyltoluene	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
sec-Butylbenzene	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
Styrene	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
tert-Butylbenzene	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
Tetrachloroethene	6.2		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
Toluene	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
trans-1,2-Dichloroethene	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
trans-1,3-Dichloropropene	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
Trichloroethene	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
Trichlorofluoromethane	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
Vinyl chloride	ND		5.8	µg/Kg-dry	1	10/2/2018 03:53 PM
Xylenes, Total	ND		12	µg/Kg-dry	1	10/2/2018 03:53 PM
Surr: 4-Bromofluorobenzene	92.5		62.7-159	%REC	1	10/2/2018 03:53 PM
Surr: Dibromofluoromethane	108		67.3-136	%REC	1	10/2/2018 03:53 PM
Surr: Toluene-d8	93.0		83-124	%REC	1	10/2/2018 03:53 PM

Note:

ALS Environmental

Date: 11-Oct-18

Client: The Mannik & Smith Group

Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; PN.:

Work Order: 18091141

Sample ID: SC-SB-GP-05

Lab ID: 18091141-05

Collection Date: 9/26/2018 10:55 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE						
Moisture	12		SM2540B	% of sample	1	Analyst: CS 10/2/2018
VOLATILE ORGANIC COMPOUNDS						
			SW8260B			Analyst: LAK
1,1,1,2-Tetrachloroethane	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
1,1,1-Trichloroethane	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
1,1,2,2-Tetrachloroethane	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
1,1,2-Trichloroethane	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
1,1-Dichloroethane	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
1,1-Dichloroethene	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
1,1-Dichloropropene	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
1,2,3-Trichlorobenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
1,2,3-Trichloropropane	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
1,2,4-Trichlorobenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
1,2,4-Trimethylbenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
1,2-Dibromo-3-chloropropane	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
1,2-Dibromoethane	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
1,2-Dichlorobenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
1,2-Dichloroethane	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
1,2-Dichloropropane	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
1,3,5-Trimethylbenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
1,3-Dichlorobenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
1,3-Dichloropropane	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
1,4-Dichlorobenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
2,2-Dichloropropane	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
2-Butanone	ND		57	µg/Kg-dry	1	10/2/2018 04:15 PM
2-Chlorotoluene	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
2-Hexanone	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
4-Chlorotoluene	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
4-Methyl-2-pentanone	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
Acetone	ND		57	µg/Kg-dry	1	10/2/2018 04:15 PM
Benzene	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
Bromobenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
Bromochloromethane	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
Bromodichloromethane	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
Bromoform	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
Bromomethane	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
Carbon disulfide	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
Carbon tetrachloride	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
Chlorobenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM

Note:

ALS Environmental

Date: 11-Oct-18

Client: The Mannik & Smith Group

Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; PN.:

Work Order: 18091141

Sample ID: SC-SB-GP-05

Lab ID: 18091141-05

Collection Date: 9/26/2018 10:55 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroethane	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
Chloroform	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
Chloromethane	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
cis-1,2-Dichloroethene	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
cis-1,3-Dichloropropene	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
Dibromochloromethane	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
Dibromomethane	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
Dichlorodifluoromethane	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
Ethylbenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
Hexachlorobutadiene	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
Isopropylbenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
m,p-Xylene	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
Methyl tert-butyl ether	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
Methylene chloride	ND		23	µg/Kg-dry	1	10/2/2018 04:15 PM
Naphthalene	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
n-Butylbenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
n-Propylbenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
o-Xylene	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
p-Isopropyltoluene	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
sec-Butylbenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
Styrene	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
tert-Butylbenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
Tetrachloroethene	10		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
Toluene	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
trans-1,2-Dichloroethene	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
trans-1,3-Dichloropropene	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
Trichloroethene	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
Trichlorofluoromethane	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
Vinyl chloride	ND		5.7	µg/Kg-dry	1	10/2/2018 04:15 PM
Xylenes, Total	ND		11	µg/Kg-dry	1	10/2/2018 04:15 PM
Surr: 4-Bromofluorobenzene	94.2		62.7-159	%REC	1	10/2/2018 04:15 PM
Surr: Dibromofluoromethane	108		67.3-136	%REC	1	10/2/2018 04:15 PM
Surr: Toluene-d8	96.0		83-124	%REC	1	10/2/2018 04:15 PM

Note:

ALS Environmental

Date: 11-Oct-18

Client: The Mannik & Smith Group

Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; PN.:

Work Order: 18091141

Sample ID: SC-SB-GP-06

Lab ID: 18091141-06

Collection Date: 9/26/2018 11:15 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE						
Moisture	20		SM2540B	% of sample	1	Analyst: CS 10/2/2018
VOLATILE ORGANIC COMPOUNDS						
			SW8260B			Analyst: LAK
1,1,1,2-Tetrachloroethane	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
1,1,1-Trichloroethane	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
1,1,2,2-Tetrachloroethane	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
1,1,2-Trichloroethane	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
1,1-Dichloroethane	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
1,1-Dichloroethene	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
1,1-Dichloropropene	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
1,2,3-Trichlorobenzene	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
1,2,3-Trichloropropane	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
1,2,4-Trichlorobenzene	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
1,2,4-Trimethylbenzene	140		31	µg/Kg-dry	5	10/3/2018 02:37 PM
1,2-Dibromo-3-chloropropane	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
1,2-Dibromoethane	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
1,2-Dichlorobenzene	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
1,2-Dichloroethane	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
1,2-Dichloropropane	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
1,3,5-Trimethylbenzene	36		31	µg/Kg-dry	5	10/3/2018 02:37 PM
1,3-Dichlorobenzene	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
1,3-Dichloropropane	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
1,4-Dichlorobenzene	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
2,2-Dichloropropane	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
2-Butanone	ND		310	µg/Kg-dry	5	10/3/2018 02:37 PM
2-Chlorotoluene	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
2-Hexanone	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
4-Chlorotoluene	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
4-Methyl-2-pentanone	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
Acetone	ND		310	µg/Kg-dry	5	10/3/2018 02:37 PM
Benzene	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
Bromobenzene	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
Bromochloromethane	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
Bromodichloromethane	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
Bromoform	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
Bromomethane	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
Carbon disulfide	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
Carbon tetrachloride	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
Chlorobenzene	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM

Note:

ALS Environmental

Date: 11-Oct-18

Client: The Mannik & Smith Group

Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; PN.:

Work Order: 18091141

Sample ID: SC-SB-GP-06

Lab ID: 18091141-06

Collection Date: 9/26/2018 11:15 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroethane	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
Chloroform	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
Chloromethane	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
cis-1,2-Dichloroethene	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
cis-1,3-Dichloropropene	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
Dibromochloromethane	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
Dibromomethane	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
Dichlorodifluoromethane	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
Ethylbenzene	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
Hexachlorobutadiene	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
Isopropylbenzene	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
m,p-Xylene	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
Methyl tert-butyl ether	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
Methylene chloride	ND		130	µg/Kg-dry	5	10/3/2018 02:37 PM
Naphthalene	210		31	µg/Kg-dry	5	10/3/2018 02:37 PM
n-Butylbenzene	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
n-Propylbenzene	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
o-Xylene	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
p-Isopropyltoluene	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
sec-Butylbenzene	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
Styrene	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
tert-Butylbenzene	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
Tetrachloroethene	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
Toluene	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
trans-1,2-Dichloroethene	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
trans-1,3-Dichloropropene	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
Trichloroethene	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
Trichlorofluoromethane	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
Vinyl chloride	ND		31	µg/Kg-dry	5	10/3/2018 02:37 PM
Xylenes, Total	ND		63	µg/Kg-dry	5	10/3/2018 02:37 PM
Surr: 4-Bromofluorobenzene	102		62.7-159	%REC	5	10/3/2018 02:37 PM
Surr: Dibromofluoromethane	104		67.3-136	%REC	5	10/3/2018 02:37 PM
Surr: Toluene-d8	94.8		83-124	%REC	5	10/3/2018 02:37 PM

Note:

ALS Environmental

Date: 11-Oct-18

Client: The Mannik & Smith Group

Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; PN.:

Work Order: 18091141

Sample ID: SC-SB-GP-08

Lab ID: 18091141-07

Collection Date: 9/26/2018 11:50 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE						
Moisture	14		SM2540B	% of sample	1	Analyst: CS 10/2/2018
VOLATILE ORGANIC COMPOUNDS						
			SW8260B			Analyst: LAK
1,1,1,2-Tetrachloroethane	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
1,1,1-Trichloroethane	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
1,1,2,2-Tetrachloroethane	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
1,1,2-Trichloroethane	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
1,1-Dichloroethane	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
1,1-Dichloroethene	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
1,1-Dichloropropene	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
1,2,3-Trichlorobenzene	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
1,2,3-Trichloropropane	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
1,2,4-Trichlorobenzene	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
1,2,4-Trimethylbenzene	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
1,2-Dibromo-3-chloropropane	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
1,2-Dibromoethane	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
1,2-Dichlorobenzene	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
1,2-Dichloroethane	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
1,2-Dichloropropane	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
1,3,5-Trimethylbenzene	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
1,3-Dichlorobenzene	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
1,3-Dichloropropane	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
1,4-Dichlorobenzene	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
2,2-Dichloropropane	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
2-Butanone	ND		58	µg/Kg-dry	1	10/2/2018 05:01 PM
2-Chlorotoluene	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
2-Hexanone	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
4-Chlorotoluene	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
4-Methyl-2-pentanone	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
Acetone	ND		58	µg/Kg-dry	1	10/2/2018 05:01 PM
Benzene	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
Bromobenzene	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
Bromochloromethane	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
Bromodichloromethane	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
Bromoform	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
Bromomethane	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
Carbon disulfide	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
Carbon tetrachloride	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
Chlorobenzene	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM

Note:

ALS Environmental

Date: 11-Oct-18

Client: The Mannik & Smith Group

Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; PN.:

Work Order: 18091141

Sample ID: SC-SB-GP-08

Lab ID: 18091141-07

Collection Date: 9/26/2018 11:50 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroethane	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
Chloroform	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
Chloromethane	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
cis-1,2-Dichloroethene	37		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
cis-1,3-Dichloropropene	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
Dibromochloromethane	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
Dibromomethane	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
Dichlorodifluoromethane	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
Ethylbenzene	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
Hexachlorobutadiene	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
Isopropylbenzene	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
m,p-Xylene	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
Methyl tert-butyl ether	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
Methylene chloride	ND		23	µg/Kg-dry	1	10/2/2018 05:01 PM
Naphthalene	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
n-Butylbenzene	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
n-Propylbenzene	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
o-Xylene	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
p-Isopropyltoluene	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
sec-Butylbenzene	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
Styrene	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
tert-Butylbenzene	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
Tetrachloroethene	10		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
Toluene	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
trans-1,2-Dichloroethene	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
trans-1,3-Dichloropropene	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
Trichloroethene	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
Trichlorofluoromethane	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
Vinyl chloride	ND		5.8	µg/Kg-dry	1	10/2/2018 05:01 PM
Xylenes, Total	ND		12	µg/Kg-dry	1	10/2/2018 05:01 PM
Surr: 4-Bromofluorobenzene	91.5		62.7-159	%REC	1	10/2/2018 05:01 PM
Surr: Dibromofluoromethane	109		67.3-136	%REC	1	10/2/2018 05:01 PM
Surr: Toluene-d8	97.5		83-124	%REC	1	10/2/2018 05:01 PM

Note:

ALS Environmental

Date: 11-Oct-18

Client: The Mannik & Smith Group

Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; PN.:

Work Order: 18091141

Sample ID: SC-SB-GP-07

Lab ID: 18091141-08

Collection Date: 9/26/2018 12:15 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE						
Moisture	13		SM2540B	% of sample	1	Analyst: CS 10/2/2018
VOLATILE ORGANIC COMPOUNDS						
1,1,1,2-Tetrachloroethane	ND		5.7	µg/Kg-dry	1	Analyst: LAK 10/2/2018 05:24 PM
1,1,1-Trichloroethane	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
1,1,2,2-Tetrachloroethane	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
1,1,2-Trichloroethane	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
1,1-Dichloroethane	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
1,1-Dichloroethene	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
1,1-Dichloropropene	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
1,2,3-Trichlorobenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
1,2,3-Trichloropropane	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
1,2,4-Trichlorobenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
1,2,4-Trimethylbenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
1,2-Dibromo-3-chloropropane	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
1,2-Dibromoethane	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
1,2-Dichlorobenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
1,2-Dichloroethane	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
1,2-Dichloropropane	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
1,3,5-Trimethylbenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
1,3-Dichlorobenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
1,3-Dichloropropane	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
1,4-Dichlorobenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
2,2-Dichloropropane	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
2-Butanone	ND		57	µg/Kg-dry	1	10/2/2018 05:24 PM
2-Chlorotoluene	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
2-Hexanone	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
4-Chlorotoluene	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
4-Methyl-2-pentanone	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
Acetone	ND		57	µg/Kg-dry	1	10/2/2018 05:24 PM
Benzene	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
Bromobenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
Bromochloromethane	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
Bromodichloromethane	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
Bromoform	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
Bromomethane	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
Carbon disulfide	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
Carbon tetrachloride	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
Chlorobenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM

Note:

ALS Environmental

Date: 11-Oct-18

Client: The Mannik & Smith Group

Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; PN.:

Work Order: 18091141

Sample ID: SC-SB-GP-07

Lab ID: 18091141-08

Collection Date: 9/26/2018 12:15 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroethane	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
Chloroform	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
Chloromethane	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
cis-1,2-Dichloroethene	48		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
cis-1,3-Dichloropropene	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
Dibromochloromethane	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
Dibromomethane	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
Dichlorodifluoromethane	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
Ethylbenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
Hexachlorobutadiene	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
Isopropylbenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
m,p-Xylene	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
Methyl tert-butyl ether	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
Methylene chloride	ND		23	µg/Kg-dry	1	10/2/2018 05:24 PM
Naphthalene	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
n-Butylbenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
n-Propylbenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
o-Xylene	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
p-Isopropyltoluene	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
sec-Butylbenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
Styrene	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
tert-Butylbenzene	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
Tetrachloroethene	28,000		720	µg/Kg-dry	125	10/3/2018 03:00 PM
Toluene	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
trans-1,2-Dichloroethene	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
trans-1,3-Dichloropropene	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
Trichloroethene	91		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
Trichlorofluoromethane	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
Vinyl chloride	ND		5.7	µg/Kg-dry	1	10/2/2018 05:24 PM
Xylenes, Total	ND		11	µg/Kg-dry	1	10/2/2018 05:24 PM
Surr: 4-Bromofluorobenzene	94.1		62.7-159	%REC	1	10/2/2018 05:24 PM
Surr: Dibromofluoromethane	107		67.3-136	%REC	1	10/2/2018 05:24 PM
Surr: Toluene-d8	94.9		83-124	%REC	1	10/2/2018 05:24 PM

Note:

ALS Environmental

Date: 11-Oct-18

Client: The Mannik & Smith Group

Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; PN.:

Work Order: 18091141

Sample ID: SC-SB-GP-09

Lab ID: 18091141-09

Collection Date: 9/26/2018 01:15 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE						
Moisture	15		SM2540B	% of sample	1	Analyst: CS 10/2/2018
VOLATILE ORGANIC COMPOUNDS						
			SW8260B			Analyst: LAK
1,1,1,2-Tetrachloroethane	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
1,1,1-Trichloroethane	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
1,1,2,2-Tetrachloroethane	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
1,1,2-Trichloroethane	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
1,1-Dichloroethane	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
1,1-Dichloroethene	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
1,1-Dichloropropene	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
1,2,3-Trichlorobenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
1,2,3-Trichloropropane	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
1,2,4-Trichlorobenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
1,2,4-Trimethylbenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
1,2-Dibromo-3-chloropropane	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
1,2-Dibromoethane	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
1,2-Dichlorobenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
1,2-Dichloroethane	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
1,2-Dichloropropane	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
1,3,5-Trimethylbenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
1,3-Dichlorobenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
1,3-Dichloropropane	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
1,4-Dichlorobenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
2,2-Dichloropropane	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
2-Butanone	ND		59	µg/Kg-dry	1	10/2/2018 05:46 PM
2-Chlorotoluene	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
2-Hexanone	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
4-Chlorotoluene	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
4-Methyl-2-pentanone	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
Acetone	ND		59	µg/Kg-dry	1	10/2/2018 05:46 PM
Benzene	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
Bromobenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
Bromochloromethane	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
Bromodichloromethane	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
Bromoform	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
Bromomethane	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
Carbon disulfide	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
Carbon tetrachloride	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
Chlorobenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM

Note:

ALS Environmental

Date: 11-Oct-18

Client: The Mannik & Smith Group

Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; PN.:

Work Order: 18091141

Sample ID: SC-SB-GP-09

Lab ID: 18091141-09

Collection Date: 9/26/2018 01:15 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroethane	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
Chloroform	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
Chloromethane	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
cis-1,2-Dichloroethene	8.0		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
cis-1,3-Dichloropropene	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
Dibromochloromethane	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
Dibromomethane	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
Dichlorodifluoromethane	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
Ethylbenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
Hexachlorobutadiene	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
Isopropylbenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
m,p-Xylene	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
Methyl tert-butyl ether	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
Methylene chloride	ND		23	µg/Kg-dry	1	10/2/2018 05:46 PM
Naphthalene	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
n-Butylbenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
n-Propylbenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
o-Xylene	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
p-Isopropyltoluene	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
sec-Butylbenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
Styrene	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
tert-Butylbenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
Tetrachloroethene	42		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
Toluene	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
trans-1,2-Dichloroethene	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
trans-1,3-Dichloropropene	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
Trichloroethene	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
Trichlorofluoromethane	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
Vinyl chloride	ND		5.9	µg/Kg-dry	1	10/2/2018 05:46 PM
Xylenes, Total	ND		12	µg/Kg-dry	1	10/2/2018 05:46 PM
Surr: 4-Bromofluorobenzene	92.3		62.7-159	%REC	1	10/2/2018 05:46 PM
Surr: Dibromofluoromethane	104		67.3-136	%REC	1	10/2/2018 05:46 PM
Surr: Toluene-d8	98.0		83-124	%REC	1	10/2/2018 05:46 PM

Note:

ALS Environmental

Date: 11-Oct-18

Client: The Mannik & Smith Group

Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; PN.:

Work Order: 18091141

Sample ID: SC-SB-GP-10

Lab ID: 18091141-10

Collection Date: 9/26/2018 01:45 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE						
Moisture	15		SM2540B	% of sample	1	Analyst: CS 10/2/2018
VOLATILE ORGANIC COMPOUNDS						
			SW8260B			Analyst: LAK
1,1,1,2-Tetrachloroethane	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
1,1,1-Trichloroethane	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
1,1,2,2-Tetrachloroethane	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
1,1,2-Trichloroethane	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
1,1-Dichloroethane	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
1,1-Dichloroethene	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
1,1-Dichloropropene	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
1,2,3-Trichlorobenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
1,2,3-Trichloropropane	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
1,2,4-Trichlorobenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
1,2,4-Trimethylbenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
1,2-Dibromo-3-chloropropane	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
1,2-Dibromoethane	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
1,2-Dichlorobenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
1,2-Dichloroethane	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
1,2-Dichloropropane	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
1,3,5-Trimethylbenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
1,3-Dichlorobenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
1,3-Dichloropropane	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
1,4-Dichlorobenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
2,2-Dichloropropane	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
2-Butanone	ND		59	µg/Kg-dry	1	10/2/2018 06:09 PM
2-Chlorotoluene	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
2-Hexanone	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
4-Chlorotoluene	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
4-Methyl-2-pentanone	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
Acetone	ND		59	µg/Kg-dry	1	10/2/2018 06:09 PM
Benzene	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
Bromobenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
Bromochloromethane	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
Bromodichloromethane	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
Bromoform	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
Bromomethane	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
Carbon disulfide	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
Carbon tetrachloride	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
Chlorobenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM

Note:

ALS Environmental

Date: 11-Oct-18

Client: The Mannik & Smith Group

Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; PN.:

Work Order: 18091141

Sample ID: SC-SB-GP-10

Lab ID: 18091141-10

Collection Date: 9/26/2018 01:45 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroethane	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
Chloroform	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
Chloromethane	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
cis-1,2-Dichloroethene	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
cis-1,3-Dichloropropene	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
Dibromochloromethane	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
Dibromomethane	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
Dichlorodifluoromethane	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
Ethylbenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
Hexachlorobutadiene	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
Isopropylbenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
m,p-Xylene	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
Methyl tert-butyl ether	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
Methylene chloride	ND		23	µg/Kg-dry	1	10/2/2018 06:09 PM
Naphthalene	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
n-Butylbenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
n-Propylbenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
o-Xylene	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
p-Isopropyltoluene	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
sec-Butylbenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
Styrene	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
tert-Butylbenzene	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
Tetrachloroethene	78		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
Toluene	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
trans-1,2-Dichloroethene	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
trans-1,3-Dichloropropene	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
Trichloroethene	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
Trichlorofluoromethane	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
Vinyl chloride	ND		5.9	µg/Kg-dry	1	10/2/2018 06:09 PM
Xylenes, Total	ND		12	µg/Kg-dry	1	10/2/2018 06:09 PM
Surr: 4-Bromofluorobenzene	93.9		62.7-159	%REC	1	10/2/2018 06:09 PM
Surr: Dibromofluoromethane	108		67.3-136	%REC	1	10/2/2018 06:09 PM
Surr: Toluene-d8	94.3		83-124	%REC	1	10/2/2018 06:09 PM

Note:

ALS Environmental

Date: 11-Oct-18

Client: The Mannik & Smith Group

Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; PN.:

Work Order: 18091141

Sample ID: SC-GW-GP-02

Lab ID: 18091141-11

Collection Date: 9/26/2018 12:25 PM

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: LAK
1,1,1,2-Tetrachloroethane	ND		5.0	µg/L	1	10/1/2018 07:00 PM
1,1,1-Trichloroethane	ND		5.0	µg/L	1	10/1/2018 07:00 PM
1,1,2,2-Tetrachloroethane	ND		5.0	µg/L	1	10/1/2018 07:00 PM
1,1,2-Trichloroethane	ND		5.0	µg/L	1	10/1/2018 07:00 PM
1,1-Dichloroethane	ND		5.0	µg/L	1	10/1/2018 07:00 PM
1,1-Dichloroethene	ND		5.0	µg/L	1	10/1/2018 07:00 PM
1,1-Dichloropropene	ND		5.0	µg/L	1	10/1/2018 07:00 PM
1,2,3-Trichlorobenzene	ND		5.0	µg/L	1	10/1/2018 07:00 PM
1,2,3-Trichloropropane	ND		5.0	µg/L	1	10/1/2018 07:00 PM
1,2,4-Trichlorobenzene	ND		5.0	µg/L	1	10/1/2018 07:00 PM
1,2,4-Trimethylbenzene	ND		5.0	µg/L	1	10/1/2018 07:00 PM
1,2-Dibromo-3-chloropropane	ND		5.0	µg/L	1	10/1/2018 07:00 PM
1,2-Dibromoethane	ND		5.0	µg/L	1	10/1/2018 07:00 PM
1,2-Dichlorobenzene	ND		5.0	µg/L	1	10/1/2018 07:00 PM
1,2-Dichloroethane	ND		5.0	µg/L	1	10/1/2018 07:00 PM
1,2-Dichloropropane	ND		5.0	µg/L	1	10/1/2018 07:00 PM
1,3,5-Trimethylbenzene	ND		5.0	µg/L	1	10/1/2018 07:00 PM
1,3-Dichlorobenzene	ND		5.0	µg/L	1	10/1/2018 07:00 PM
1,3-Dichloropropane	ND		5.0	µg/L	1	10/1/2018 07:00 PM
1,4-Dichlorobenzene	ND		5.0	µg/L	1	10/1/2018 07:00 PM
2,2-Dichloropropane	ND		5.0	µg/L	1	10/1/2018 07:00 PM
2-Butanone	ND		50	µg/L	1	10/1/2018 07:00 PM
2-Chlorotoluene	ND		5.0	µg/L	1	10/1/2018 07:00 PM
2-Hexanone	ND		5.0	µg/L	1	10/1/2018 07:00 PM
4-Chlorotoluene	ND		5.0	µg/L	1	10/1/2018 07:00 PM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	10/1/2018 07:00 PM
Acetone	ND		50	µg/L	1	10/1/2018 07:00 PM
Benzene	ND		5.0	µg/L	1	10/1/2018 07:00 PM
Bromobenzene	ND		5.0	µg/L	1	10/1/2018 07:00 PM
Bromochloromethane	ND		5.0	µg/L	1	10/1/2018 07:00 PM
Bromodichloromethane	ND		5.0	µg/L	1	10/1/2018 07:00 PM
Bromoform	ND		5.0	µg/L	1	10/1/2018 07:00 PM
Bromomethane	ND		5.0	µg/L	1	10/1/2018 07:00 PM
Carbon disulfide	ND		5.0	µg/L	1	10/1/2018 07:00 PM
Carbon tetrachloride	ND		5.0	µg/L	1	10/1/2018 07:00 PM
Chlorobenzene	ND		5.0	µg/L	1	10/1/2018 07:00 PM
Chloroethane	ND		5.0	µg/L	1	10/1/2018 07:00 PM
Chloroform	ND		5.0	µg/L	1	10/1/2018 07:00 PM
Chloromethane	ND		5.0	µg/L	1	10/1/2018 07:00 PM

Note:

ALS Environmental

Date: 11-Oct-18

Client: The Mannik & Smith Group

Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; PN.:

Work Order: 18091141

Sample ID: SC-GW-GP-02

Lab ID: 18091141-11

Collection Date: 9/26/2018 12:25 PM

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	ND		5.0	µg/L	1	10/1/2018 07:00 PM
cis-1,3-Dichloropropene	ND		5.0	µg/L	1	10/1/2018 07:00 PM
Dibromochloromethane	ND		5.0	µg/L	1	10/1/2018 07:00 PM
Dibromomethane	ND		5.0	µg/L	1	10/1/2018 07:00 PM
Dichlorodifluoromethane	ND		5.0	µg/L	1	10/1/2018 07:00 PM
Ethylbenzene	ND		5.0	µg/L	1	10/1/2018 07:00 PM
Hexachlorobutadiene	ND		5.0	µg/L	1	10/1/2018 07:00 PM
Isopropylbenzene	ND		5.0	µg/L	1	10/1/2018 07:00 PM
m,p-Xylene	ND		5.0	µg/L	1	10/1/2018 07:00 PM
Methyl tert-butyl ether	ND		5.0	µg/L	1	10/1/2018 07:00 PM
Methylene chloride	ND		5.0	µg/L	1	10/1/2018 07:00 PM
Naphthalene	ND		5.0	µg/L	1	10/1/2018 07:00 PM
n-Butylbenzene	ND		5.0	µg/L	1	10/1/2018 07:00 PM
n-Propylbenzene	ND		5.0	µg/L	1	10/1/2018 07:00 PM
o-Xylene	ND		5.0	µg/L	1	10/1/2018 07:00 PM
p-Isopropyltoluene	ND		5.0	µg/L	1	10/1/2018 07:00 PM
sec-Butylbenzene	ND		5.0	µg/L	1	10/1/2018 07:00 PM
Styrene	ND		5.0	µg/L	1	10/1/2018 07:00 PM
tert-Butylbenzene	ND		5.0	µg/L	1	10/1/2018 07:00 PM
Tetrachloroethene	ND		5.0	µg/L	1	10/1/2018 07:00 PM
Toluene	ND		5.0	µg/L	1	10/1/2018 07:00 PM
trans-1,2-Dichloroethene	ND		5.0	µg/L	1	10/1/2018 07:00 PM
trans-1,3-Dichloropropene	ND		5.0	µg/L	1	10/1/2018 07:00 PM
Trichloroethene	ND		5.0	µg/L	1	10/1/2018 07:00 PM
Trichlorofluoromethane	ND		5.0	µg/L	1	10/1/2018 07:00 PM
Vinyl chloride	ND		2.0	µg/L	1	10/1/2018 07:00 PM
Xylenes, Total	ND		10	µg/L	1	10/1/2018 07:00 PM
Surr: 4-Bromofluorobenzene	102		61-131	%REC	1	10/1/2018 07:00 PM
Surr: Dibromofluoromethane	101		87-126	%REC	1	10/1/2018 07:00 PM
Surr: Toluene-d8	101		84-111	%REC	1	10/1/2018 07:00 PM

Note:

ALS Environmental

Date: 11-Oct-18

Client: The Mannik & Smith Group

QC BATCH REPORT

Work Order: 18091141

Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; P

Batch ID: R157062

Instrument ID: VMS1

Method: SW8260B

MBLK		Sample ID: MBLK-R157062			Units: µg/L		Analysis Date: 10/1/2018 10:13 AM			
Client ID:		Run ID: VMS1_181001A			SeqNo: 1841747		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0								
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,1-Dichloropropene	ND	5.0								
1,2,3-Trichlorobenzene	ND	5.0								
1,2,3-Trichloropropane	ND	5.0								
1,2,4-Trichlorobenzene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromo-3-chloropropane	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichlorobenzene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
1,3-Dichlorobenzene	ND	5.0								
1,3-Dichloropropane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2,2-Dichloropropane	ND	5.0								
2-Butanone	ND	50								
2-Chlorotoluene	ND	5.0								
2-Hexanone	ND	5.0								
4-Chlorotoluene	ND	5.0								
4-Methyl-2-pentanone	ND	5.0								
Acetone	ND	50								
Benzene	ND	5.0								
Bromobenzene	ND	5.0								
Bromochloromethane	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	5.0								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik & Smith Group
Work Order: 18091141
Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; P

QC BATCH REPORT

Batch ID: R157062		Instrument ID: VMS1		Method: SW8260B				
Dibromochloromethane	ND	5.0						
Dibromomethane	ND	5.0						
Dichlorodifluoromethane	ND	5.0						
Ethylbenzene	ND	5.0						
Hexachlorobutadiene	ND	5.0						
Isopropylbenzene	ND	5.0						
m,p-Xylene	ND	5.0						
Methyl tert-butyl ether	ND	5.0						
Methylene chloride	ND	5.0						
Naphthalene	ND	5.0						
n-Butylbenzene	ND	5.0						
n-Propylbenzene	ND	5.0						
o-Xylene	ND	5.0						
p-Isopropyltoluene	ND	5.0						
sec-Butylbenzene	ND	5.0						
Styrene	ND	5.0						
tert-Butylbenzene	ND	5.0						
Tetrachloroethene	ND	5.0						
Toluene	ND	5.0						
trans-1,2-Dichloroethene	ND	5.0						
trans-1,3-Dichloropropene	ND	5.0						
Trichloroethene	ND	5.0						
Trichlorofluoromethane	ND	5.0						
Vinyl chloride	ND	2.0						
Xylenes, Total	ND	10						
Surr: 4-Bromofluorobenzene	50.46	0	50	0	101	61-131	0	
Surr: Dibromofluoromethane	48.67	0	50	0	97.3	87-126	0	
Surr: Toluene-d8	50.19	0	50	0	100	84-111	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik & Smith Group
Work Order: 18091141
Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; P

QC BATCH REPORT

Batch ID: **R157062** Instrument ID: **VMS1** Method: **SW8260B**

LCS		Sample ID: LCS-R157062				Units: µg/L		Analysis Date: 10/1/2018 10:47 AM		
Client ID:		Run ID: VMS1_181001A				SeqNo: 1841748		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	57.27	5.0	50	0	115	48.4-140	0			
1,1-Dichloroethene	47.78	5.0	50	0	95.6	45.5-150	0			
1,2-Dichloroethane	54.29	5.0	50	0	109	46.5-141	0			
1,3-Dichlorobenzene	61.31	5.0	50	0	123	42.5-133	0			
1,4-Dichlorobenzene	56.54	5.0	50	0	113	38.9-136	0			
Benzene	52.8	5.0	50	0	106	50.7-134	0			
Carbon tetrachloride	59.06	5.0	50	0	118	45.5-143	0			
Chlorobenzene	57.6	5.0	50	0	115	45-133	0			
Chloroform	55.3	5.0	50	0	111	52.4-136	0			
cis-1,2-Dichloroethene	53.84	5.0	50	0	108	49.7-138	0			
Ethylbenzene	60.37	5.0	50	0	121	37.8-145	0			
m,p-Xylene	126	5.0	100	0	126	25.1-163	0			
Methyl tert-butyl ether	ND	5.0	50	0	0	26.7-174	0			S
Styrene	60.78	5.0	50	0	122	26.3-172	0			
Tetrachloroethene	50.71	5.0	50	0	101	37.3-139	0			
Toluene	58.2	5.0	50	0	116	44-135	0			
Trichloroethene	55.6	5.0	50	0	111	45.9-140	0			
Xylenes, Total	186.7	10	150	0	124	47.3-132	0			
Surr: 4-Bromofluorobenzene	46.54	0	50	0	93.1	61-131	0			
Surr: Dibromofluoromethane	47.99	0	50	0	96	87-126	0			
Surr: Toluene-d8	50.06	0	50	0	100	84-111	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik & Smith Group
 Work Order: 18091141
 Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; P

QC BATCH REPORT

Batch ID: R157062 Instrument ID: VMS1 Method: SW8260B

MS		Sample ID: 1809857-07A MS			Units: µg/L		Analysis Date: 10/1/2018 11:11 AM			
Client ID:		Run ID: VMS1_181001A			SeqNo: 1841749		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	49.7	5.0	50	0	99.4	40.4-134	0			
1,1-Dichloroethene	41.02	5.0	50	0	82	45.3-151	0			
1,2-Dichloroethane	48.91	5.0	50	0	97.8	37-139	0			
1,3-Dichlorobenzene	47.78	5.0	50	0	95.6	42.9-121	0			
1,4-Dichlorobenzene	45.89	5.0	50	0	91.8	53.4-129	0			
Benzene	45.51	5.0	50	0	91	37.4-144	0			
Carbon tetrachloride	50.02	5.0	50	0	100	33.8-150	0			
Chlorobenzene	48.83	5.0	50	0	97.7	52.4-132	0			
Chloroform	48.22	5.0	50	0	96.4	45.5-135	0			
cis-1,2-Dichloroethene	46.87	5.0	50	1.48	90.8	35.2-150	0			
Ethylbenzene	50.12	5.0	50	0	100	46.5-146	0			
m,p-Xylene	103.7	5.0	100	0	104	38.2-167	0			
Styrene	49.71	5.0	50	0	99.4	20.9-184	0			
Tetrachloroethene	42.58	5.0	50	1.32	82.5	55.2-134	0			
Toluene	49.03	5.0	50	0	98.1	32.7-140	0			
Trichloroethene	47.13	5.0	50	0	94.3	29.1-153	0			
Xylenes, Total	154.1	10	150	0	103	43.6-148	0			
Surr: 4-Bromofluorobenzene	47.06	0	50	0	94.1	61-131	0			
Surr: Dibromofluoromethane	49.11	0	50	0	98.2	87-126	0			
Surr: Toluene-d8	49.79	0	50	0	99.6	84-111	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik & Smith Group
 Work Order: 18091141
 Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; P

QC BATCH REPORT

Batch ID: R157062 Instrument ID: VMS1 Method: SW8260B

MSD		Sample ID: 1809857-07A MSD			Units: µg/L		Analysis Date: 10/1/2018 11:42 AM			
Client ID:		Run ID: VMS1_181001A			SeqNo: 1841750		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	42.3	5.0	50	0	84.6	40.4-134	49.7	16.1	20	
1,1-Dichloroethene	35.37	5.0	50	0	70.7	45.3-151	41.02	14.8	20	
1,2-Dichloroethane	41.9	5.0	50	0	83.8	37-139	48.91	15.4	20	
1,3-Dichlorobenzene	40.87	5.0	50	0	81.7	42.9-121	47.78	15.6	20	
1,4-Dichlorobenzene	40.55	5.0	50	0	81.1	53.4-129	45.89	12.4	20	
Benzene	39.43	5.0	50	0	78.9	37.4-144	45.51	14.3	20	
Carbon tetrachloride	42.2	5.0	50	0	84.4	33.8-150	50.02	17	20	
Chlorobenzene	41.31	5.0	50	0	82.6	52.4-132	48.83	16.7	20	
Chloroform	41.86	5.0	50	0	83.7	45.5-135	48.22	14.1	20	
cis-1,2-Dichloroethene	40.89	5.0	50	1.48	78.8	35.2-150	46.87	13.6	21	
Ethylbenzene	41.26	5.0	50	0	82.5	46.5-146	50.12	19.4	20	
m,p-Xylene	85.93	5.0	100	0	85.9	38.2-167	103.7	18.7	20	
Styrene	41.54	5.0	50	0	83.1	20.9-184	49.71	17.9	20	
Tetrachloroethene	35.33	5.0	50	1.32	68	55.2-134	42.58	18.6	20	
Toluene	41.86	5.0	50	0	83.7	32.7-140	49.03	15.8	20	
Trichloroethene	40.57	5.0	50	0	81.1	29.1-153	47.13	15	20	
Xylenes, Total	127.8	10	150	0	85.2	43.6-148	154.1	18.7	20	
Surr: 4-Bromofluorobenzene	48.54	0	50	0	97.1	61-131	47.06	3.1		
Surr: Dibromofluoromethane	49.23	0	50	0	98.5	87-126	49.11	0.244		
Surr: Toluene-d8	50.23	0	50	0	100	84-111	49.79	0.88		

The following samples were analyzed in this batch:

18091141-11A

Client: The Mannik & Smith Group
Work Order: 18091141
Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; P

QC BATCH REPORT

Batch ID: R157114 Instrument ID: VMS2 Method: SW8260B

MBLK		Sample ID: MBLK-R157114			Units: µg/Kg		Analysis Date: 10/2/2018 11:07 AM			
Client ID:		Run ID: VMS2_181002A			SeqNo: 1842500		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0								
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,1-Dichloropropene	ND	5.0								
1,2,3-Trichlorobenzene	ND	5.0								
1,2,3-Trichloropropane	ND	5.0								
1,2,4-Trichlorobenzene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromo-3-chloropropane	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichlorobenzene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
1,3-Dichlorobenzene	ND	5.0								
1,3-Dichloropropane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2,2-Dichloropropane	ND	5.0								
2-Butanone	ND	50								
2-Chlorotoluene	ND	5.0								
2-Hexanone	ND	5.0								
4-Chlorotoluene	ND	5.0								
4-Methyl-2-pentanone	ND	5.0								
Acetone	ND	50								
Benzene	ND	5.0								
Bromobenzene	ND	5.0								
Bromochloromethane	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	5.0								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik & Smith Group
Work Order: 18091141
Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; P

QC BATCH REPORT

Batch ID: R157114		Instrument ID: VMS2		Method: SW8260B				
Dibromomethane	ND	5.0						
Dichlorodifluoromethane	ND	5.0						
Ethylbenzene	ND	5.0						
Hexachlorobutadiene	ND	5.0						
Isopropylbenzene	ND	5.0						
m,p-Xylene	ND	5.0						
Methyl tert-butyl ether	ND	5.0						
Methylene chloride	ND	20						
Naphthalene	ND	5.0						
n-Butylbenzene	ND	5.0						
n-Propylbenzene	ND	5.0						
o-Xylene	ND	5.0						
p-Isopropyltoluene	ND	5.0						
sec-Butylbenzene	ND	5.0						
Styrene	ND	5.0						
tert-Butylbenzene	ND	5.0						
Tetrachloroethene	ND	5.0						
Toluene	ND	5.0						
trans-1,2-Dichloroethene	ND	5.0						
trans-1,3-Dichloropropene	ND	5.0						
Trichloroethene	ND	5.0						
Trichlorofluoromethane	ND	5.0						
Vinyl chloride	ND	5.0						
Xylenes, Total	ND	10						
Surr: 4-Bromofluorobenzene	46.37	0	50	0	92.7	62.7-159	0	
Surr: Dibromofluoromethane	51.26	0	50	0	103	67.3-136	0	
Surr: Toluene-d8	45.59	0	50	0	91.2	83-124	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik & Smith Group
Work Order: 18091141
Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; P

QC BATCH REPORT

Batch ID: R157114 Instrument ID: VMS2 Method: SW8260B

LCS	Sample ID: LCS-R157114			Units: µg/Kg		Analysis Date: 10/2/2018 11:30 AM				
Client ID:	Run ID: VMS2_181002A			SeqNo: 1842501		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	54.64	5.0	50	0	109	53.6-149	0			
1,1-Dichloroethene	49.79	5.0	50	0	99.6	38.8-176	0			
1,2-Dichloroethane	53.77	5.0	50	0	108	54.4-145	0			
1,3-Dichlorobenzene	52.59	5.0	50	0	105	54.2-137	0			
1,4-Dichlorobenzene	50.45	5.0	50	0	101	52.8-135	0			
Benzene	53	5.0	50	0	106	56-148	0			
Carbon tetrachloride	57.5	5.0	50	0	115	51.9-151	0			
Chlorobenzene	51.43	5.0	50	0	103	55.4-137	0			
Chloroform	54.68	5.0	50	0	109	51.1-147	0			
cis-1,2-Dichloroethene	51.75	5.0	50	0	104	47.6-149	0			
Ethylbenzene	51.68	5.0	50	0	103	55.8-142	0			
m,p-Xylene	102.4	5.0	100	0	102	57.6-141	0			
Styrene	49.52	5.0	50	0	99	59.6-143	0			
Tetrachloroethene	45.53	5.0	50	0	91.1	56.2-160	0			
Toluene	54.41	5.0	50	0	109	56-143	0			
Trichloroethene	51.99	5.0	50	0	104	56.5-143	0			
Surr: 4-Bromofluorobenzene	50.58	0	50	0	101	62.7-159	0			
Surr: Dibromofluoromethane	52.37	0	50	0	105	67.3-136	0			
Surr: Toluene-d8	50.78	0	50	0	102	83-124	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik & Smith Group
Work Order: 18091141
Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; P

QC BATCH REPORT

Batch ID: R157114 Instrument ID: VMS2 Method: SW8260B

MS		Sample ID: 18091177-04A MS			Units: µg/Kg		Analysis Date: 10/2/2018 12:04 PM			
Client ID:		Run ID: VMS2_181002A			SeqNo: 1842502		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	59.1	5.0	50	0	118	66.9-140	0			
1,1-Dichloroethene	53.44	5.0	50	0	107	41.4-161	0			
1,2-Dichloroethane	58.98	5.0	50	0	118	58.9-137	0			
1,3-Dichlorobenzene	56.8	5.0	50	0	114	56.3-126	0			
1,4-Dichlorobenzene	56.39	5.0	50	0	113	58.3-122	0			
Benzene	57.68	5.0	50	0	115	35.8-162	0			
Carbon tetrachloride	60.25	5.0	50	0	120	53.2-137	0			
Chlorobenzene	57.04	5.0	50	0	114	65.6-137	0			
Chloroform	59.2	5.0	50	0	118	58-130	0			
cis-1,2-Dichloroethene	57.35	5.0	50	0	115	52.9-138	0			
Ethylbenzene	56.32	5.0	50	0	113	57.5-134	0			
m,p-Xylene	112.6	5.0	100	0	113	56.4-135	0			
Styrene	56.41	5.0	50	0	113	60.9-135	0			
Tetrachloroethene	50.87	5.0	50	0	102	52.1-160	0			
Toluene	56.97	5.0	50	0	114	67.7-135	0			
Trichloroethene	57.26	5.0	50	0	115	56.5-136	0			
Surr: 4-Bromofluorobenzene	49.96	0	50	0	99.9	62.7-159	0			
Surr: Dibromofluoromethane	52.17	0	50	0	104	67.3-136	0			
Surr: Toluene-d8	49.12	0	50	0	98.2	83-124	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik & Smith Group
 Work Order: 18091141
 Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; P

QC BATCH REPORT

Batch ID: R157114 Instrument ID: VMS2 Method: SW8260B

MSD	Sample ID: 18091177-04A MSD				Units: µg/Kg		Analysis Date: 10/2/2018 12:27 PM			
Client ID:	Run ID: VMS2_181002A				SeqNo: 1842503		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	45.71	5.0	50	0	91.4	66.9-140	59.1	25.6	31.2	
1,1-Dichloroethene	40.63	5.0	50	0	81.3	41.4-161	53.44	27.2	38.1	
1,2-Dichloroethane	45.4	5.0	50	0	90.8	58.9-137	58.98	26	26.2	
1,3-Dichlorobenzene	44.55	5.0	50	0	89.1	56.3-126	56.8	24.2	21	R
1,4-Dichlorobenzene	43.39	5.0	50	0	86.8	58.3-122	56.39	26.1	28.7	
Benzene	43.92	5.0	50	0	87.8	35.8-162	57.68	27.1	23.6	R
Carbon tetrachloride	44.33	5.0	50	0	88.7	53.2-137	60.25	30.4	32.3	
Chlorobenzene	43.46	5.0	50	0	86.9	65.6-137	57.04	27	20	R
Chloroform	45.59	5.0	50	0	91.2	58-130	59.2	26	28.2	
cis-1,2-Dichloroethene	44.82	5.0	50	0	89.6	52.9-138	57.35	24.5	23.7	R
Ethylbenzene	44.64	5.0	50	0	89.3	57.5-134	56.32	23.1	24.9	
m,p-Xylene	88.74	5.0	100	0	88.7	56.4-135	112.6	23.7	25.1	
Styrene	45.27	5.0	50	0	90.5	60.9-135	56.41	21.9	22.8	
Tetrachloroethene	39.35	5.0	50	0	78.7	52.1-160	50.87	25.5	24.7	R
Toluene	45.48	5.0	50	0	91	67.7-135	56.97	22.4	20	R
Trichloroethene	42.54	5.0	50	0	85.1	56.5-136	57.26	29.5	20	R
Surr: 4-Bromofluorobenzene	49.83	0	50	0	99.7	62.7-159	49.96	0.261		
Surr: Dibromofluoromethane	52.63	0	50	0	105	67.3-136	52.17	0.878		
Surr: Toluene-d8	50.24	0	50	0	100	83-124	49.12	2.25		

The following samples were analyzed in this batch:

18091141-01A	18091141-02A	18091141-03A
18091141-04A	18091141-05A	18091141-06A
18091141-07A	18091141-08A	18091141-09A
18091141-10A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik & Smith Group
Work Order: 18091141
Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; P

QC BATCH REPORT

Batch ID: **R157151** Instrument ID: **VMS2** Method: **SW8260B**

MBLK		Sample ID: MBLK-R157151		Units: µg/Kg		Analysis Date: 10/3/2018 10:45 AM				
Client ID:		Run ID: VMS2_181003A		SeqNo: 1843320		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0								
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,1-Dichloropropene	ND	5.0								
1,2,3-Trichlorobenzene	ND	5.0								
1,2,3-Trichloropropane	ND	5.0								
1,2,4-Trichlorobenzene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromo-3-chloropropane	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichlorobenzene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
1,3-Dichlorobenzene	ND	5.0								
1,3-Dichloropropane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2,2-Dichloropropane	ND	5.0								
2-Butanone	ND	50								
2-Chlorotoluene	ND	5.0								
2-Hexanone	ND	5.0								
4-Chlorotoluene	ND	5.0								
4-Methyl-2-pentanone	ND	5.0								
Acetone	ND	50								
Benzene	ND	5.0								
Bromobenzene	ND	5.0								
Bromochloromethane	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	5.0								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik & Smith Group
Work Order: 18091141
Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; P

QC BATCH REPORT

Batch ID: R157151		Instrument ID: VMS2		Method: SW8260B				
Dibromomethane	ND	5.0						
Dichlorodifluoromethane	ND	5.0						
Ethylbenzene	ND	5.0						
Hexachlorobutadiene	ND	5.0						
Isopropylbenzene	ND	5.0						
m,p-Xylene	ND	5.0						
Methyl tert-butyl ether	ND	5.0						
Methylene chloride	ND	20						
Naphthalene	ND	5.0						
n-Butylbenzene	ND	5.0						
n-Propylbenzene	ND	5.0						
o-Xylene	ND	5.0						
p-Isopropyltoluene	ND	5.0						
sec-Butylbenzene	ND	5.0						
Styrene	ND	5.0						
tert-Butylbenzene	ND	5.0						
Tetrachloroethene	ND	5.0						
Toluene	ND	5.0						
trans-1,2-Dichloroethene	ND	5.0						
trans-1,3-Dichloropropene	ND	5.0						
Trichloroethene	ND	5.0						
Trichlorofluoromethane	ND	5.0						
Vinyl chloride	ND	5.0						
Xylenes, Total	ND	10						
Surr: 4-Bromofluorobenzene	45.76	0	50	0	91.5	62.7-159	0	
Surr: Dibromofluoromethane	52.94	0	50	0	106	67.3-136	0	
Surr: Toluene-d8	46.96	0	50	0	93.9	83-124	0	

Client: The Mannik & Smith Group
Work Order: 18091141
Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; P

QC BATCH REPORT

Batch ID: **R157151** Instrument ID: **VMS2** Method: **SW8260B**

LCS		Sample ID: LCS-R157151			Units: µg/Kg		Analysis Date: 10/3/2018 11:08 AM			
Client ID:		Run ID: VMS2_181003A			SeqNo: 1843321		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	42.39	5.0	50	0	84.8	53.6-149	0			
1,1-Dichloroethene	34.85	5.0	50	0	69.7	38.8-176	0			
1,2-Dichloroethane	42.09	5.0	50	0	84.2	54.4-145	0			
1,3-Dichlorobenzene	39.4	5.0	50	0	78.8	54.2-137	0			
1,4-Dichlorobenzene	37.73	5.0	50	0	75.5	52.8-135	0			
Benzene	40.61	5.0	50	0	81.2	56-148	0			
Carbon tetrachloride	42.58	5.0	50	0	85.2	51.9-151	0			
Chlorobenzene	39.44	5.0	50	0	78.9	55.4-137	0			
Chloroform	40.92	5.0	50	0	81.8	51.1-147	0			
cis-1,2-Dichloroethene	40.38	5.0	50	0	80.8	47.6-149	0			
Ethylbenzene	41.13	5.0	50	0	82.3	55.8-142	0			
m,p-Xylene	83.34	5.0	100	0	83.3	57.6-141	0			
Styrene	41.11	5.0	50	0	82.2	59.6-143	0			
Tetrachloroethene	38.17	5.0	50	0	76.3	56.2-160	0			
Toluene	41.64	5.0	50	0	83.3	56-143	0			
Trichloroethene	40.3	5.0	50	0	80.6	56.5-143	0			
Surr: 4-Bromofluorobenzene	48.25	0	50	0	96.5	62.7-159	0			
Surr: Dibromofluoromethane	51.27	0	50	0	103	67.3-136	0			
Surr: Toluene-d8	49.71	0	50	0	99.4	83-124	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik & Smith Group
Work Order: 18091141
Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; P

QC BATCH REPORT

Batch ID: R157151 Instrument ID: VMS2 Method: SW8260B

MS		Sample ID: 1810034-01A MS			Units: µg/Kg		Analysis Date: 10/3/2018 11:34 AM			
Client ID:		Run ID: VMS2_181003A			SeqNo: 1843322		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	62.96	5.0	50	0	126	66.9-140	0			
1,1-Dichloroethene	53.54	5.0	50	0	107	41.4-161	0			
1,2-Dichloroethane	62.37	5.0	50	0	125	58.9-137	0			
1,3-Dichlorobenzene	61.56	5.0	50	0	123	56.3-126	0			
1,4-Dichlorobenzene	59.87	5.0	50	0	120	58.3-122	0			
Benzene	60.55	5.0	50	0	121	35.8-162	0			
Carbon tetrachloride	64.85	5.0	50	0	130	53.2-137	0			
Chlorobenzene	60.53	5.0	50	0	121	65.6-137	0			
Chloroform	61.59	5.0	50	0	123	58-130	0			
cis-1,2-Dichloroethene	61.69	5.0	50	0	123	52.9-138	0			
Ethylbenzene	60.7	5.0	50	0	121	57.5-134	0			
m,p-Xylene	123.1	5.0	100	0	123	56.4-135	0			
Styrene	61.16	5.0	50	0	122	60.9-135	0			
Tetrachloroethene	57.18	5.0	50	0	114	52.1-160	0			
Toluene	62.43	5.0	50	0	125	67.7-135	0			
Trichloroethene	61.67	5.0	50	0	123	56.5-136	0			
Surr: 4-Bromofluorobenzene	48.47	0	50	0	96.9	62.7-159	0			
Surr: Dibromofluoromethane	50.19	0	50	0	100	67.3-136	0			
Surr: Toluene-d8	48.4	0	50	0	96.8	83-124	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik & Smith Group
 Work Order: 18091141
 Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; P

QC BATCH REPORT

Batch ID: R157151 Instrument ID: VMS2 Method: SW8260B

MSD		Sample ID: 1810034-01A MSD				Units: µg/Kg		Analysis Date: 10/3/2018 11:57 AM			
Client ID:		Run ID: VMS2_181003A				SeqNo: 1843323		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,1,1-Trichloroethane	49.31	5.0	50	0	98.6	66.9-140	62.96	24.3	31.2		
1,1-Dichloroethene	39.14	5.0	50	0	78.3	41.4-161	53.54	31.1	38.1		
1,2-Dichloroethane	50.87	5.0	50	0	102	58.9-137	62.37	20.3	26.2		
1,3-Dichlorobenzene	47.33	5.0	50	0	94.7	56.3-126	61.56	26.1	21	R	
1,4-Dichlorobenzene	47.01	5.0	50	0	94	58.3-122	59.87	24.1	28.7		
Benzene	46.88	5.0	50	0	93.8	35.8-162	60.55	25.4	23.6	R	
Carbon tetrachloride	49.28	5.0	50	0	98.6	53.2-137	64.85	27.3	32.3		
Chlorobenzene	47.99	5.0	50	0	96	65.6-137	60.53	23.1	20	R	
Chloroform	46.29	5.0	50	0	92.6	58-130	61.59	28.4	28.2	R	
cis-1,2-Dichloroethene	45.77	5.0	50	0	91.5	52.9-138	61.69	29.6	23.7	R	
Ethylbenzene	48.6	5.0	50	0	97.2	57.5-134	60.7	22.1	24.9		
m,p-Xylene	96.83	5.0	100	0	96.8	56.4-135	123.1	23.9	25.1		
Styrene	48.58	5.0	50	0	97.2	60.9-135	61.16	22.9	22.8	R	
Tetrachloroethene	45.16	5.0	50	0	90.3	52.1-160	57.18	23.5	24.7		
Toluene	49.57	5.0	50	0	99.1	67.7-135	62.43	23	20	R	
Trichloroethene	46.8	5.0	50	0	93.6	56.5-136	61.67	27.4	20	R	
Surr: 4-Bromofluorobenzene	48.55	0	50	0	97.1	62.7-159	48.47	0.165			
Surr: Dibromofluoromethane	50.07	0	50	0	100	67.3-136	50.19	0.239			
Surr: Toluene-d8	50.65	0	50	0	101	83-124	48.4	4.54			

The following samples were analyzed in this batch:

18091141-01A	18091141-03A	18091141-06A
18091141-08A		

Client: The Mannik & Smith Group
Project: Mob Order #MS19-04 Swan Cleaners- Mansfield; PN.:
WorkOrder: 18091141

QUALIFIERS, ACRONYMS, UNITS

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SDL	Sample Detection Limit
SW	SW-846 Method

<u>Units Reported</u>	<u>Description</u>
% of sample	
µg/Kg-dry	
µg/L	

Sample Receipt Checklist

Client Name: MANNIK-MAUMEE

Date/Time Received: 28-Sep-18 10:40

Work Order: 18091141

Received by: SNH

Checklist completed by: Jan Wilcox

28-Sep-18

Reviewed by: Rob Nieman

01-Oct-18

eSignature

Date

eSignature

Date

Matrices:

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Temperature(s)/Thermometer(s):

3.0

Cooler(s)/Kit(s):

Water - VOA vials have zero headspace?

Yes ☐ No ☐ No VOA vials submitted ☐

Water - pH acceptable upon receipt?

Yes ☐ No ☐ N/A ☐

pH adjusted?

Yes ☐ No ☐ N/A ☐

pH adjusted by:

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

Corrective Action:



Ship To: **ALS Environmental**
4388 Glendale Milford Rd.
Cincinnati, Ohio 45242
Phone: (513) 733-5336
Fax: (513) 733-5347

Field Chain-of-Custody Record

Page 1 of 2

50238

REV 10/2017

Date: 9/27/2018
Purchase Order No.: 18091141
Company Name: The Mannick + Smith Group, Inc.
Project No.: ODAS0002 - 48
Address: 1800 Indian Wood Circle
Maumee OH 43537
City State Zip
Person to Contact: Matt Pesci
Billing Address (if different): Ohio EPA
Email Address: mpesci@mannicksmithgroup.com
Division of Emergency + Remedial Response
Telephone (419) 891-2222 ext. 2088
Lazarus Government Center P.O. Box 1049
Alternate Contact: Columbus, OH 43260-1049

ALS Lab ID	Sample ID / Description	Date	Time
<u>01</u>	<u>SB-SB-GP-01</u>	<u>9/26/18</u>	<u>09:15</u>
<u>02</u>	<u>SC-SB-GP-02</u>		<u>09:50</u>
<u>03</u>	<u>SC-SB-GP-03</u>		<u>10:10</u>
<u>04</u>	<u>SC-SB-GP-04</u>		<u>10:30</u>
<u>05</u>	<u>SC-SB-GP-05</u>		<u>10:55</u>
<u>06</u>	<u>SC-SB-GP-06</u>		<u>11:15</u>
<u>07</u>	<u>SC-SB-GP-08</u>		<u>11:50</u>
<u>08</u>	<u>SC-SB-GP-07</u>		<u>12:15</u>
<u>09</u>	<u>SC-SB-GP-09</u>		<u>13:15</u>
<u>10</u>	<u>SC-SB-GP-10</u>		<u>13:45</u>

Notes:

Preservation Key: 1 - HCl 2 - HNO₃ 3 - H₂SO₄ 4 - NaOH 5 - Na₂S₂O₈ 6 - NaHSO₄ 7 - NaOH/ZnAcetate 8 - Other 9 - 4°C

Matrix Key: A - Air B - Bulk S - Soil W - Water

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY

Relinquished By: (Signature)	Time / Date	Received By: (Signature)	Time / Date
<u>[Signature]</u>	<u>11:30 9/27/18</u>	<u>[Signature]</u>	<u>9/26/18</u>
Relinquished By: (Signature)	Time / Date	Received By: (Signature)	Time / Date
Relinquished By: (Signature)	Time / Date	Received By: (Signature)	Time / Date

ALS LAB USE ONLY	
COOLER TEMP: <u>3.0</u> °C	TAKEN WITH IIR#: <u>119063</u> 119059
COOLING METHOD: NONE	COOLER: <u>WET</u> DRY/ICE ICE PACK
DELIVERY METHOD: CLIENT	DROP BOX FEDEX UPS
STD MAIL PRTY MAIL ALS COURIER OTHER:	
CUSTODY SEALS: NOT REQUIRED COOLER PACKAGE SAMPLES	
pH ADJUSTMENTS:	

Page 2 of 2

50239

REV 10/2017

Preservation Key:	1 - HCl	2 - HNO ₃	3 - H ₂ SO ₄	4 - NaOH	5 - Na ₂ S ₂ O ₃	6 - NaHSO ₄	7 - NaOH/ZnAcetate	8 - Other	9 - 4°C
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Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.

Relinquished By: (Signature)	Time / Date 17:30 9/27/16	Received By: (Signature)	Time / Date 9/28/16
Relinquished By: (Signature)	Time / Date	Received By: (Signature)	Time / Date
Relinquished By: (Signature)	Time / Date	Received By: (Signature)	Time / Date

Matrix Key:	A - Air	B - Bulk	S - Soil	W - Water
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ALS LAB USE ONLY				
COOLER TEMP:	°C	TAKEN WITH IR#: 119063 119069		
COOLING METHOD:	NONE	COOLER	WET ICE	DRY ICE
DELIVERY METHOD:	CLIENT	DROP BOX	FEDEX	UPS
STD MAIL	PRTY MAIL	ALS	COURIER	OTHER:
CUSTODY SEALS:		NOT REQUIRED	COOLER	PACKAGE
pH ADJUSTMENTS:				



04-Oct-2018

Matt Pesci
The Mannik&Smith Group, Inc.
1160 Dublin Road
Suite 100
Columbus, OH 43215

Tel: (513) 733-5336
Fax: (888) 488-7340

Re: Swan Cleaners- Mansfield; PN.: 00AS0002-48

Work Order: **18091145**

Dear Matt,

ALS Environmental received 8 samples on 28-Sep-2018 10:45 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 42.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,


Rob Nieman

Electronically approved by: Rob Nieman

Rob Nieman
Project Manager

ADDRESS 4388 Glendale Milford Rd Cincinnati, OH 45242- | PHONE (513) 733-5336 | FAX (513) 733-5347

ALS GROUP USA, CORP. Part of the ALS Group An ALS Limited Company

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.
Project: Swan Cleaners- Mansfield; PN.: 00AS0002-48
Work Order: 18091145

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
18091145-01	SC-V-VP-01	Air		9/27/2018	9/28/2018 10:45	<input type="checkbox"/>
18091145-02	SC-V-VP-02	Air		9/27/2018	9/28/2018 10:45	<input type="checkbox"/>
18091145-03	SC-V-VP-03	Air		9/27/2018	9/28/2018 10:45	<input type="checkbox"/>
18091145-04	SC-V-VP-04	Air		9/27/2018	9/28/2018 10:45	<input type="checkbox"/>
18091145-05	SC-V-VP-05	Air		9/27/2018	9/28/2018 10:45	<input type="checkbox"/>
18091145-06	SC-V-VP-06	Air		9/27/2018	9/28/2018 10:45	<input type="checkbox"/>
18091145-07	SC-V-VP-08	Air		9/27/2018	9/28/2018 10:45	<input type="checkbox"/>
18091145-08	SC-V-VP-07	Air		9/27/2018	9/28/2018 10:45	<input type="checkbox"/>

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.
Project: Swan Cleaners- Mansfield; PN.: 00AS0002-48
Work Order: 18091145

Case Narrative

The analyses requested were analyzed according to Ohio Voluntary Action Program requirements. Affidavits are available upon request.

The analytical data provided relates directly to the samples received by ALS Laboratory Group and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.
 Project: Swan Cleaners- Mansfield; PN.: 00AS0002-48
 Sample ID: SC-V-VP-01
 Collection Date: 9/27/2018

Work Order: 18091145
 Lab ID: 18091145-01
 Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			ETO-15			Analyst: MRJ
1,1,1-Trichloroethane	ND		250	ppbv	500	10/2/2018 10:02 PM
1,1,2,2-Tetrachloroethane	ND		250	ppbv	500	10/2/2018 10:02 PM
1,1,2-Trichloroethane	ND		250	ppbv	500	10/2/2018 10:02 PM
1,1-Dichloroethane	ND		250	ppbv	500	10/2/2018 10:02 PM
1,1-Dichloroethene	ND		250	ppbv	500	10/2/2018 10:02 PM
1,2,4-Trichlorobenzene	ND		250	ppbv	500	10/2/2018 10:02 PM
1,2,4-Trimethylbenzene	ND		250	ppbv	500	10/2/2018 10:02 PM
1,2-Dibromoethane	ND		250	ppbv	500	10/2/2018 10:02 PM
1,2-Dichlorobenzene	ND		250	ppbv	500	10/2/2018 10:02 PM
1,2-Dichloroethane	ND		250	ppbv	500	10/2/2018 10:02 PM
1,2-Dichloropropane	ND		250	ppbv	500	10/2/2018 10:02 PM
1,3,5-Trimethylbenzene	ND		250	ppbv	500	10/2/2018 10:02 PM
1,3-Butadiene	ND		250	ppbv	500	10/2/2018 10:02 PM
1,3-Dichlorobenzene	ND		250	ppbv	500	10/2/2018 10:02 PM
1,4-Dichlorobenzene	ND		250	ppbv	500	10/2/2018 10:02 PM
1,4-Dioxane	ND		500	ppbv	500	10/2/2018 10:02 PM
2-Butanone	ND		250	ppbv	500	10/2/2018 10:02 PM
2-Hexanone	ND		500	ppbv	500	10/2/2018 10:02 PM
2-Propanol	ND		500	ppbv	500	10/2/2018 10:02 PM
4-Ethyltoluene	ND		250	ppbv	500	10/2/2018 10:02 PM
4-Methyl-2-pentanone	ND		500	ppbv	500	10/2/2018 10:02 PM
Acetone	ND		500	ppbv	500	10/2/2018 10:02 PM
Benzene	ND		250	ppbv	500	10/2/2018 10:02 PM
Benzyl chloride	ND		250	ppbv	500	10/2/2018 10:02 PM
Bromodichloromethane	ND		250	ppbv	500	10/2/2018 10:02 PM
Bromoform	ND		250	ppbv	500	10/2/2018 10:02 PM
Bromomethane	ND		250	ppbv	500	10/2/2018 10:02 PM
Carbon disulfide	260		250	ppbv	500	10/2/2018 10:02 PM
Carbon tetrachloride	ND		250	ppbv	500	10/2/2018 10:02 PM
Chlorobenzene	ND		250	ppbv	500	10/2/2018 10:02 PM
Chloroethane	ND		250	ppbv	500	10/2/2018 10:02 PM
Chloroform	ND		100	ppbv	500	10/2/2018 10:02 PM
Chloromethane	ND		250	ppbv	500	10/2/2018 10:02 PM
cis-1,2-Dichloroethene	2,300		250	ppbv	500	10/2/2018 10:02 PM
cis-1,3-Dichloropropene	ND		250	ppbv	500	10/2/2018 10:02 PM
Cumene	ND		250	ppbv	500	10/2/2018 10:02 PM
Cyclohexane	ND		250	ppbv	500	10/2/2018 10:02 PM
Dibromochloromethane	ND		250	ppbv	500	10/2/2018 10:02 PM
Dichlorodifluoromethane	ND		250	ppbv	500	10/2/2018 10:02 PM

Note:

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.

Project: Swan Cleaners- Mansfield; PN.: 00AS0002-48

Sample ID: SC-V-VP-01

Collection Date: 9/27/2018

Work Order: 18091145

Lab ID: 18091145-01

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		250	ppbv	500	10/2/2018 10:02 PM
Ethylbenzene	ND		250	ppbv	500	10/2/2018 10:02 PM
Freon 113	ND		250	ppbv	500	10/2/2018 10:02 PM
Freon 114	ND		250	ppbv	500	10/2/2018 10:02 PM
Heptane	ND		250	ppbv	500	10/2/2018 10:02 PM
Hexachlorobutadiene	ND		250	ppbv	500	10/2/2018 10:02 PM
Hexane	ND		250	ppbv	500	10/2/2018 10:02 PM
m,p-Xylene	ND		250	ppbv	500	10/2/2018 10:02 PM
Methylene chloride	ND		500	ppbv	500	10/2/2018 10:02 PM
MTBE	ND		250	ppbv	500	10/2/2018 10:02 PM
Naphthalene	ND		100	ppbv	500	10/2/2018 10:02 PM
o-Xylene	ND		250	ppbv	500	10/2/2018 10:02 PM
Propene	ND		250	ppbv	500	10/2/2018 10:02 PM
Styrene	ND		250	ppbv	500	10/2/2018 10:02 PM
Tetrachloroethene	550		250	ppbv	500	10/2/2018 10:02 PM
Tetrahydrofuran	ND		250	ppbv	500	10/2/2018 10:02 PM
Toluene	ND		250	ppbv	500	10/2/2018 10:02 PM
trans-1,2-Dichloroethene	460		250	ppbv	500	10/2/2018 10:02 PM
trans-1,3-Dichloropropene	ND		250	ppbv	500	10/2/2018 10:02 PM
Trichloroethene	510		100	ppbv	500	10/2/2018 10:02 PM
Trichlorofluoromethane	ND		250	ppbv	500	10/2/2018 10:02 PM
Vinyl acetate	ND		250	ppbv	500	10/2/2018 10:02 PM
Vinyl chloride	ND		250	ppbv	500	10/2/2018 10:02 PM
<i>Surr: Bromofluorobenzene</i>	<i>99.1</i>		<i>60-140</i>	<i>%REC</i>	500	10/2/2018 10:02 PM
TO-15 BY GC/MS			ETO-15		Analyst: MRJ	
1,1,1-Trichloroethane	ND		1,360	µg/m3	500	10/2/2018 10:02 PM
1,1,2,2-Tetrachloroethane	ND		1,720	µg/m3	500	10/2/2018 10:02 PM
1,1,2-Trichloroethane	ND		1,360	µg/m3	500	10/2/2018 10:02 PM
1,1-Dichloroethane	ND		1,010	µg/m3	500	10/2/2018 10:02 PM
1,1-Dichloroethene	ND		991	µg/m3	500	10/2/2018 10:02 PM
1,2,4-Trichlorobenzene	ND		1,860	µg/m3	500	10/2/2018 10:02 PM
1,2,4-Trimethylbenzene	ND		1,230	µg/m3	500	10/2/2018 10:02 PM
1,2-Dibromoethane	ND		1,920	µg/m3	500	10/2/2018 10:02 PM
1,2-Dichlorobenzene	ND		1,500	µg/m3	500	10/2/2018 10:02 PM
1,2-Dichloroethane	ND		1,010	µg/m3	500	10/2/2018 10:02 PM
1,2-Dichloropropane	ND		1,160	µg/m3	500	10/2/2018 10:02 PM
1,3,5-Trimethylbenzene	ND		1,230	µg/m3	500	10/2/2018 10:02 PM
1,3-Butadiene	ND		553	µg/m3	500	10/2/2018 10:02 PM
1,3-Dichlorobenzene	ND		1,500	µg/m3	500	10/2/2018 10:02 PM
1,4-Dichlorobenzene	ND		1,500	µg/m3	500	10/2/2018 10:02 PM

Note:

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.

Project: Swan Cleaners- Mansfield; PN.: 00AS0002-48

Sample ID: SC-V-VP-01

Collection Date: 9/27/2018

Work Order: 18091145

Lab ID: 18091145-01

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		1,800	µg/m3	500	10/2/2018 10:02 PM
2-Butanone	ND		737	µg/m3	500	10/2/2018 10:02 PM
2-Hexanone	ND		2,050	µg/m3	500	10/2/2018 10:02 PM
2-Propanol	ND		1,230	µg/m3	500	10/2/2018 10:02 PM
4-Ethyltoluene	ND		1,230	µg/m3	500	10/2/2018 10:02 PM
4-Methyl-2-pentanone	ND		2,050	µg/m3	500	10/2/2018 10:02 PM
Acetone	ND		1,190	µg/m3	500	10/2/2018 10:02 PM
Benzene	ND		799	µg/m3	500	10/2/2018 10:02 PM
Benzyl chloride	ND		1,290	µg/m3	500	10/2/2018 10:02 PM
Bromodichloromethane	ND		1,680	µg/m3	500	10/2/2018 10:02 PM
Bromoform	ND		2,580	µg/m3	500	10/2/2018 10:02 PM
Bromomethane	ND		971	µg/m3	500	10/2/2018 10:02 PM
Carbon disulfide	825		778	µg/m3	500	10/2/2018 10:02 PM
Carbon tetrachloride	ND		1,570	µg/m3	500	10/2/2018 10:02 PM
Chlorobenzene	ND		1,150	µg/m3	500	10/2/2018 10:02 PM
Chloroethane	ND		660	µg/m3	500	10/2/2018 10:02 PM
Chloroform	ND		488	µg/m3	500	10/2/2018 10:02 PM
Chloromethane	ND		516	µg/m3	500	10/2/2018 10:02 PM
cis-1,2-Dichloroethene	9,220		991	µg/m3	500	10/2/2018 10:02 PM
cis-1,3-Dichloropropene	ND		1,130	µg/m3	500	10/2/2018 10:02 PM
Cumene	ND		1,230	µg/m3	500	10/2/2018 10:02 PM
Cyclohexane	ND		861	µg/m3	500	10/2/2018 10:02 PM
Dibromochloromethane	ND		2,130	µg/m3	500	10/2/2018 10:02 PM
Dichlorodifluoromethane	ND		1,240	µg/m3	500	10/2/2018 10:02 PM
Ethyl acetate	ND		901	µg/m3	500	10/2/2018 10:02 PM
Ethylbenzene	ND		1,090	µg/m3	500	10/2/2018 10:02 PM
Freon 113	ND		1,920	µg/m3	500	10/2/2018 10:02 PM
Freon 114	ND		1,750	µg/m3	500	10/2/2018 10:02 PM
Heptane	ND		1,020	µg/m3	500	10/2/2018 10:02 PM
Hexachlorobutadiene	ND		2,670	µg/m3	500	10/2/2018 10:02 PM
Hexane	ND		881	µg/m3	500	10/2/2018 10:02 PM
m,p-Xylene	ND		1,090	µg/m3	500	10/2/2018 10:02 PM
Methylene chloride	ND		1,740	µg/m3	500	10/2/2018 10:02 PM
MTBE	ND		901	µg/m3	500	10/2/2018 10:02 PM
Naphthalene	ND		524	µg/m3	500	10/2/2018 10:02 PM
o-Xylene	ND		1,090	µg/m3	500	10/2/2018 10:02 PM
Propene	ND		430	µg/m3	500	10/2/2018 10:02 PM
Styrene	ND		1,060	µg/m3	500	10/2/2018 10:02 PM
Tetrachloroethene	3,730		1,700	µg/m3	500	10/2/2018 10:02 PM
Tetrahydrofuran	ND		737	µg/m3	500	10/2/2018 10:02 PM

Note:

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.

Project: Swan Cleaners- Mansfield; PN.: 00AS0002-48

Work Order: 18091145

Sample ID: SC-V-VP-01

Lab ID: 18091145-01

Collection Date: 9/27/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	ND		942	µg/m3	500	10/2/2018 10:02 PM
trans-1,2-Dichloroethene	1,820		991	µg/m3	500	10/2/2018 10:02 PM
trans-1,3-Dichloropropene	ND		1,130	µg/m3	500	10/2/2018 10:02 PM
Trichloroethene	2,740		537	µg/m3	500	10/2/2018 10:02 PM
Trichlorofluoromethane	ND		1,400	µg/m3	500	10/2/2018 10:02 PM
Vinyl acetate	ND		880	µg/m3	500	10/2/2018 10:02 PM
Vinyl chloride	ND		639	µg/m3	500	10/2/2018 10:02 PM
Surr: Bromofluorobenzene	99.1		60-140	%REC	500	10/2/2018 10:02 PM

Note:

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.

Project: Swan Cleaners- Mansfield; PN.: 00AS0002-48

Work Order: 18091145

Sample ID: SC-V-VP-02

Lab ID: 18091145-02

Collection Date: 9/27/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			ETO-15			Analyst: MRJ
1,1,1-Trichloroethane	ND		250	ppbv	500	10/2/2018 10:47 PM
1,1,2,2-Tetrachloroethane	ND		250	ppbv	500	10/2/2018 10:47 PM
1,1,2-Trichloroethane	ND		250	ppbv	500	10/2/2018 10:47 PM
1,1-Dichloroethane	ND		250	ppbv	500	10/2/2018 10:47 PM
1,1-Dichloroethene	ND		250	ppbv	500	10/2/2018 10:47 PM
1,2,4-Trichlorobenzene	ND		250	ppbv	500	10/2/2018 10:47 PM
1,2,4-Trimethylbenzene	ND		250	ppbv	500	10/2/2018 10:47 PM
1,2-Dibromoethane	ND		250	ppbv	500	10/2/2018 10:47 PM
1,2-Dichlorobenzene	ND		250	ppbv	500	10/2/2018 10:47 PM
1,2-Dichloroethane	ND		250	ppbv	500	10/2/2018 10:47 PM
1,2-Dichloropropane	ND		250	ppbv	500	10/2/2018 10:47 PM
1,3,5-Trimethylbenzene	ND		250	ppbv	500	10/2/2018 10:47 PM
1,3-Butadiene	ND		250	ppbv	500	10/2/2018 10:47 PM
1,3-Dichlorobenzene	ND		250	ppbv	500	10/2/2018 10:47 PM
1,4-Dichlorobenzene	ND		250	ppbv	500	10/2/2018 10:47 PM
1,4-Dioxane	ND		500	ppbv	500	10/2/2018 10:47 PM
2-Butanone	ND		250	ppbv	500	10/2/2018 10:47 PM
2-Hexanone	ND		500	ppbv	500	10/2/2018 10:47 PM
2-Propanol	ND		500	ppbv	500	10/2/2018 10:47 PM
4-Ethyltoluene	ND		250	ppbv	500	10/2/2018 10:47 PM
4-Methyl-2-pentanone	ND		500	ppbv	500	10/2/2018 10:47 PM
Acetone	ND		500	ppbv	500	10/2/2018 10:47 PM
Benzene	ND		250	ppbv	500	10/2/2018 10:47 PM
Benzyl chloride	ND		250	ppbv	500	10/2/2018 10:47 PM
Bromodichloromethane	ND		250	ppbv	500	10/2/2018 10:47 PM
Bromoform	ND		250	ppbv	500	10/2/2018 10:47 PM
Bromomethane	ND		250	ppbv	500	10/2/2018 10:47 PM
Carbon disulfide	ND		250	ppbv	500	10/2/2018 10:47 PM
Carbon tetrachloride	ND		250	ppbv	500	10/2/2018 10:47 PM
Chlorobenzene	ND		250	ppbv	500	10/2/2018 10:47 PM
Chloroethane	ND		250	ppbv	500	10/2/2018 10:47 PM
Chloroform	ND		100	ppbv	500	10/2/2018 10:47 PM
Chloromethane	ND		250	ppbv	500	10/2/2018 10:47 PM
cis-1,2-Dichloroethene	410		250	ppbv	500	10/2/2018 10:47 PM
cis-1,3-Dichloropropene	ND		250	ppbv	500	10/2/2018 10:47 PM
Cumene	ND		250	ppbv	500	10/2/2018 10:47 PM
Cyclohexane	ND		250	ppbv	500	10/2/2018 10:47 PM
Dibromochloromethane	ND		250	ppbv	500	10/2/2018 10:47 PM
Dichlorodifluoromethane	ND		250	ppbv	500	10/2/2018 10:47 PM

Note:

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.
Project: Swan Cleaners- Mansfield; PN.: 00AS0002-48
Sample ID: SC-V-VP-02
Collection Date: 9/27/2018

Work Order: 18091145
Lab ID: 18091145-02
Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		250	ppbv	500	10/2/2018 10:47 PM
Ethylbenzene	ND		250	ppbv	500	10/2/2018 10:47 PM
Freon 113	ND		250	ppbv	500	10/2/2018 10:47 PM
Freon 114	ND		250	ppbv	500	10/2/2018 10:47 PM
Heptane	ND		250	ppbv	500	10/2/2018 10:47 PM
Hexachlorobutadiene	ND		250	ppbv	500	10/2/2018 10:47 PM
Hexane	ND		250	ppbv	500	10/2/2018 10:47 PM
m,p-Xylene	ND		250	ppbv	500	10/2/2018 10:47 PM
Methylene chloride	ND		500	ppbv	500	10/2/2018 10:47 PM
MTBE	ND		250	ppbv	500	10/2/2018 10:47 PM
Naphthalene	ND		100	ppbv	500	10/2/2018 10:47 PM
o-Xylene	ND		250	ppbv	500	10/2/2018 10:47 PM
Propene	ND		250	ppbv	500	10/2/2018 10:47 PM
Styrene	ND		250	ppbv	500	10/2/2018 10:47 PM
Tetrachloroethene	9,000		250	ppbv	500	10/2/2018 10:47 PM
Tetrahydrofuran	ND		250	ppbv	500	10/2/2018 10:47 PM
Toluene	ND		250	ppbv	500	10/2/2018 10:47 PM
trans-1,2-Dichloroethene	ND		250	ppbv	500	10/2/2018 10:47 PM
trans-1,3-Dichloropropene	ND		250	ppbv	500	10/2/2018 10:47 PM
Trichloroethene	700		100	ppbv	500	10/2/2018 10:47 PM
Trichlorofluoromethane	ND		250	ppbv	500	10/2/2018 10:47 PM
Vinyl acetate	ND		250	ppbv	500	10/2/2018 10:47 PM
Vinyl chloride	ND		250	ppbv	500	10/2/2018 10:47 PM
<i>Surr: Bromofluorobenzene</i>	<i>100</i>		<i>60-140</i>	<i>%REC</i>	500	10/2/2018 10:47 PM
TO-15 BY GC/MS			ETO-15		Analyst: MRJ	
1,1,1-Trichloroethane	ND		1,360	µg/m3	500	10/2/2018 10:47 PM
1,1,2,2-Tetrachloroethane	ND		1,720	µg/m3	500	10/2/2018 10:47 PM
1,1,2-Trichloroethane	ND		1,360	µg/m3	500	10/2/2018 10:47 PM
1,1-Dichloroethane	ND		1,010	µg/m3	500	10/2/2018 10:47 PM
1,1-Dichloroethene	ND		991	µg/m3	500	10/2/2018 10:47 PM
1,2,4-Trichlorobenzene	ND		1,860	µg/m3	500	10/2/2018 10:47 PM
1,2,4-Trimethylbenzene	ND		1,230	µg/m3	500	10/2/2018 10:47 PM
1,2-Dibromoethane	ND		1,920	µg/m3	500	10/2/2018 10:47 PM
1,2-Dichlorobenzene	ND		1,500	µg/m3	500	10/2/2018 10:47 PM
1,2-Dichloroethane	ND		1,010	µg/m3	500	10/2/2018 10:47 PM
1,2-Dichloropropane	ND		1,160	µg/m3	500	10/2/2018 10:47 PM
1,3,5-Trimethylbenzene	ND		1,230	µg/m3	500	10/2/2018 10:47 PM
1,3-Butadiene	ND		553	µg/m3	500	10/2/2018 10:47 PM
1,3-Dichlorobenzene	ND		1,500	µg/m3	500	10/2/2018 10:47 PM
1,4-Dichlorobenzene	ND		1,500	µg/m3	500	10/2/2018 10:47 PM

Note:

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.**Project:** Swan Cleaners- Mansfield; PN.: 00AS0002-48**Work Order:** 18091145**Sample ID:** SC-V-VP-02**Lab ID:** 18091145-02**Collection Date:** 9/27/2018**Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		1,800	µg/m3	500	10/2/2018 10:47 PM
2-Butanone	ND		737	µg/m3	500	10/2/2018 10:47 PM
2-Hexanone	ND		2,050	µg/m3	500	10/2/2018 10:47 PM
2-Propanol	ND		1,230	µg/m3	500	10/2/2018 10:47 PM
4-Ethyltoluene	ND		1,230	µg/m3	500	10/2/2018 10:47 PM
4-Methyl-2-pentanone	ND		2,050	µg/m3	500	10/2/2018 10:47 PM
Acetone	ND		1,190	µg/m3	500	10/2/2018 10:47 PM
Benzene	ND		799	µg/m3	500	10/2/2018 10:47 PM
Benzyl chloride	ND		1,290	µg/m3	500	10/2/2018 10:47 PM
Bromodichloromethane	ND		1,680	µg/m3	500	10/2/2018 10:47 PM
Bromoform	ND		2,580	µg/m3	500	10/2/2018 10:47 PM
Bromomethane	ND		971	µg/m3	500	10/2/2018 10:47 PM
Carbon disulfide	ND		778	µg/m3	500	10/2/2018 10:47 PM
Carbon tetrachloride	ND		1,570	µg/m3	500	10/2/2018 10:47 PM
Chlorobenzene	ND		1,150	µg/m3	500	10/2/2018 10:47 PM
Chloroethane	ND		660	µg/m3	500	10/2/2018 10:47 PM
Chloroform	ND		488	µg/m3	500	10/2/2018 10:47 PM
Chloromethane	ND		516	µg/m3	500	10/2/2018 10:47 PM
cis-1,2-Dichloroethene	1,630		991	µg/m3	500	10/2/2018 10:47 PM
cis-1,3-Dichloropropene	ND		1,130	µg/m3	500	10/2/2018 10:47 PM
Cumene	ND		1,230	µg/m3	500	10/2/2018 10:47 PM
Cyclohexane	ND		861	µg/m3	500	10/2/2018 10:47 PM
Dibromochloromethane	ND		2,130	µg/m3	500	10/2/2018 10:47 PM
Dichlorodifluoromethane	ND		1,240	µg/m3	500	10/2/2018 10:47 PM
Ethyl acetate	ND		901	µg/m3	500	10/2/2018 10:47 PM
Ethylbenzene	ND		1,090	µg/m3	500	10/2/2018 10:47 PM
Freon 113	ND		1,920	µg/m3	500	10/2/2018 10:47 PM
Freon 114	ND		1,750	µg/m3	500	10/2/2018 10:47 PM
Heptane	ND		1,020	µg/m3	500	10/2/2018 10:47 PM
Hexachlorobutadiene	ND		2,670	µg/m3	500	10/2/2018 10:47 PM
Hexane	ND		881	µg/m3	500	10/2/2018 10:47 PM
m,p-Xylene	ND		1,090	µg/m3	500	10/2/2018 10:47 PM
Methylene chloride	ND		1,740	µg/m3	500	10/2/2018 10:47 PM
MTBE	ND		901	µg/m3	500	10/2/2018 10:47 PM
Naphthalene	ND		524	µg/m3	500	10/2/2018 10:47 PM
o-Xylene	ND		1,090	µg/m3	500	10/2/2018 10:47 PM
Propene	ND		430	µg/m3	500	10/2/2018 10:47 PM
Styrene	ND		1,060	µg/m3	500	10/2/2018 10:47 PM
Tetrachloroethene	61,200		1,700	µg/m3	500	10/2/2018 10:47 PM
Tetrahydrofuran	ND		737	µg/m3	500	10/2/2018 10:47 PM

Note:

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.**Project:** Swan Cleaners- Mansfield; PN.: 00AS0002-48**Work Order:** 18091145**Sample ID:** SC-V-VP-02**Lab ID:** 18091145-02**Collection Date:** 9/27/2018**Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	ND		942	µg/m3	500	10/2/2018 10:47 PM
trans-1,2-Dichloroethene	ND		991	µg/m3	500	10/2/2018 10:47 PM
trans-1,3-Dichloropropene	ND		1,130	µg/m3	500	10/2/2018 10:47 PM
Trichloroethene	3,790		537	µg/m3	500	10/2/2018 10:47 PM
Trichlorofluoromethane	ND		1,400	µg/m3	500	10/2/2018 10:47 PM
Vinyl acetate	ND		880	µg/m3	500	10/2/2018 10:47 PM
Vinyl chloride	ND		639	µg/m3	500	10/2/2018 10:47 PM
Surr: Bromofluorobenzene	100		60-140	%REC	500	10/2/2018 10:47 PM

Note:

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.

Project: Swan Cleaners- Mansfield; PN.: 00AS0002-48

Sample ID: SC-V-VP-03

Collection Date: 9/27/2018

Work Order: 18091145

Lab ID: 18091145-03

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			ETO-15			Analyst: MRJ
1,1,1-Trichloroethane	ND		250	ppbv	500	10/2/2018 11:32 PM
1,1,2,2-Tetrachloroethane	ND		250	ppbv	500	10/2/2018 11:32 PM
1,1,2-Trichloroethane	ND		250	ppbv	500	10/2/2018 11:32 PM
1,1-Dichloroethane	ND		250	ppbv	500	10/2/2018 11:32 PM
1,1-Dichloroethene	ND		250	ppbv	500	10/2/2018 11:32 PM
1,2,4-Trichlorobenzene	ND		250	ppbv	500	10/2/2018 11:32 PM
1,2,4-Trimethylbenzene	ND		250	ppbv	500	10/2/2018 11:32 PM
1,2-Dibromoethane	ND		250	ppbv	500	10/2/2018 11:32 PM
1,2-Dichlorobenzene	ND		250	ppbv	500	10/2/2018 11:32 PM
1,2-Dichloroethane	ND		250	ppbv	500	10/2/2018 11:32 PM
1,2-Dichloropropane	ND		250	ppbv	500	10/2/2018 11:32 PM
1,3,5-Trimethylbenzene	ND		250	ppbv	500	10/2/2018 11:32 PM
1,3-Butadiene	ND		250	ppbv	500	10/2/2018 11:32 PM
1,3-Dichlorobenzene	ND		250	ppbv	500	10/2/2018 11:32 PM
1,4-Dichlorobenzene	ND		250	ppbv	500	10/2/2018 11:32 PM
1,4-Dioxane	ND		500	ppbv	500	10/2/2018 11:32 PM
2-Butanone	ND		250	ppbv	500	10/2/2018 11:32 PM
2-Hexanone	ND		500	ppbv	500	10/2/2018 11:32 PM
2-Propanol	ND		500	ppbv	500	10/2/2018 11:32 PM
4-Ethyltoluene	ND		250	ppbv	500	10/2/2018 11:32 PM
4-Methyl-2-pentanone	ND		500	ppbv	500	10/2/2018 11:32 PM
Acetone	ND		500	ppbv	500	10/2/2018 11:32 PM
Benzene	ND		250	ppbv	500	10/2/2018 11:32 PM
Benzyl chloride	ND		250	ppbv	500	10/2/2018 11:32 PM
Bromodichloromethane	ND		250	ppbv	500	10/2/2018 11:32 PM
Bromoform	ND		250	ppbv	500	10/2/2018 11:32 PM
Bromomethane	ND		250	ppbv	500	10/2/2018 11:32 PM
Carbon disulfide	ND		250	ppbv	500	10/2/2018 11:32 PM
Carbon tetrachloride	420,000		10,000	ppbv	20000	10/3/2018 05:34 PM
Chlorobenzene	ND		250	ppbv	500	10/2/2018 11:32 PM
Chloroethane	ND		250	ppbv	500	10/2/2018 11:32 PM
Chloroform	42,000		4,000	ppbv	20000	10/3/2018 05:34 PM
Chloromethane	ND		250	ppbv	500	10/2/2018 11:32 PM
cis-1,2-Dichloroethene	ND		250	ppbv	500	10/2/2018 11:32 PM
cis-1,3-Dichloropropene	ND		250	ppbv	500	10/2/2018 11:32 PM
Cumene	ND		250	ppbv	500	10/2/2018 11:32 PM
Cyclohexane	ND		250	ppbv	500	10/2/2018 11:32 PM
Dibromochloromethane	ND		250	ppbv	500	10/2/2018 11:32 PM
Dichlorodifluoromethane	ND		250	ppbv	500	10/2/2018 11:32 PM

Note:

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.

Project: Swan Cleaners- Mansfield; PN.: 00AS0002-48

Work Order: 18091145

Sample ID: SC-V-VP-03

Lab ID: 18091145-03

Collection Date: 9/27/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		250	ppbv	500	10/2/2018 11:32 PM
Ethylbenzene	ND		250	ppbv	500	10/2/2018 11:32 PM
Freon 113	ND		250	ppbv	500	10/2/2018 11:32 PM
Freon 114	ND		250	ppbv	500	10/2/2018 11:32 PM
Heptane	ND		250	ppbv	500	10/2/2018 11:32 PM
Hexachlorobutadiene	ND		250	ppbv	500	10/2/2018 11:32 PM
Hexane	ND		250	ppbv	500	10/2/2018 11:32 PM
m,p-Xylene	ND		250	ppbv	500	10/2/2018 11:32 PM
Methylene chloride	ND		500	ppbv	500	10/2/2018 11:32 PM
MTBE	ND		250	ppbv	500	10/2/2018 11:32 PM
Naphthalene	ND		100	ppbv	500	10/2/2018 11:32 PM
o-Xylene	ND		250	ppbv	500	10/2/2018 11:32 PM
Propene	ND		250	ppbv	500	10/2/2018 11:32 PM
Styrene	ND		250	ppbv	500	10/2/2018 11:32 PM
Tetrachloroethene	28,000		10,000	ppbv	20000	10/3/2018 05:34 PM
Tetrahydrofuran	ND		250	ppbv	500	10/2/2018 11:32 PM
Toluene	ND		250	ppbv	500	10/2/2018 11:32 PM
trans-1,2-Dichloroethene	ND		250	ppbv	500	10/2/2018 11:32 PM
trans-1,3-Dichloropropene	ND		250	ppbv	500	10/2/2018 11:32 PM
Trichloroethene	320		100	ppbv	500	10/2/2018 11:32 PM
Trichlorofluoromethane	ND		250	ppbv	500	10/2/2018 11:32 PM
Vinyl acetate	ND		250	ppbv	500	10/2/2018 11:32 PM
Vinyl chloride	ND		250	ppbv	500	10/2/2018 11:32 PM
<i>Surr: Bromofluorobenzene</i>	<i>102</i>		<i>60-140</i>	<i>%REC</i>	<i>500</i>	<i>10/2/2018 11:32 PM</i>
TO-15 BY GC/MS			ETO-15			Analyst: MRJ
1,1,1-Trichloroethane	ND		1,360	µg/m3	500	10/2/2018 11:32 PM
1,1,2,2-Tetrachloroethane	ND		1,720	µg/m3	500	10/2/2018 11:32 PM
1,1,2-Trichloroethane	ND		1,360	µg/m3	500	10/2/2018 11:32 PM
1,1-Dichloroethane	ND		1,010	µg/m3	500	10/2/2018 11:32 PM
1,1-Dichloroethene	ND		991	µg/m3	500	10/2/2018 11:32 PM
1,2,4-Trichlorobenzene	ND		1,860	µg/m3	500	10/2/2018 11:32 PM
1,2,4-Trimethylbenzene	ND		1,230	µg/m3	500	10/2/2018 11:32 PM
1,2-Dibromoethane	ND		1,920	µg/m3	500	10/2/2018 11:32 PM
1,2-Dichlorobenzene	ND		1,500	µg/m3	500	10/2/2018 11:32 PM
1,2-Dichloroethane	ND		1,010	µg/m3	500	10/2/2018 11:32 PM
1,2-Dichloropropane	ND		1,160	µg/m3	500	10/2/2018 11:32 PM
1,3,5-Trimethylbenzene	ND		1,230	µg/m3	500	10/2/2018 11:32 PM
1,3-Butadiene	ND		553	µg/m3	500	10/2/2018 11:32 PM
1,3-Dichlorobenzene	ND		1,500	µg/m3	500	10/2/2018 11:32 PM
1,4-Dichlorobenzene	ND		1,500	µg/m3	500	10/2/2018 11:32 PM

Note:

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.

Project: Swan Cleaners- Mansfield; PN.: 00AS0002-48

Work Order: 18091145

Sample ID: SC-V-VP-03

Lab ID: 18091145-03

Collection Date: 9/27/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		1,800	µg/m3	500	10/2/2018 11:32 PM
2-Butanone	ND		737	µg/m3	500	10/2/2018 11:32 PM
2-Hexanone	ND		2,050	µg/m3	500	10/2/2018 11:32 PM
2-Propanol	ND		1,230	µg/m3	500	10/2/2018 11:32 PM
4-Ethyltoluene	ND		1,230	µg/m3	500	10/2/2018 11:32 PM
4-Methyl-2-pentanone	ND		2,050	µg/m3	500	10/2/2018 11:32 PM
Acetone	ND		1,190	µg/m3	500	10/2/2018 11:32 PM
Benzene	ND		799	µg/m3	500	10/2/2018 11:32 PM
Benzyl chloride	ND		1,290	µg/m3	500	10/2/2018 11:32 PM
Bromodichloromethane	ND		1,680	µg/m3	500	10/2/2018 11:32 PM
Bromoform	ND		2,580	µg/m3	500	10/2/2018 11:32 PM
Bromomethane	ND		971	µg/m3	500	10/2/2018 11:32 PM
Carbon disulfide	ND		778	µg/m3	500	10/2/2018 11:32 PM
Carbon tetrachloride	2,620,000		62,900	µg/m3	20000	10/3/2018 05:34 PM
Chlorobenzene	ND		1,150	µg/m3	500	10/2/2018 11:32 PM
Chloroethane	ND		660	µg/m3	500	10/2/2018 11:32 PM
Chloroform	204,000		19,500	µg/m3	20000	10/3/2018 05:34 PM
Chloromethane	ND		516	µg/m3	500	10/2/2018 11:32 PM
cis-1,2-Dichloroethene	ND		991	µg/m3	500	10/2/2018 11:32 PM
cis-1,3-Dichloropropene	ND		1,130	µg/m3	500	10/2/2018 11:32 PM
Cumene	ND		1,230	µg/m3	500	10/2/2018 11:32 PM
Cyclohexane	ND		861	µg/m3	500	10/2/2018 11:32 PM
Dibromochloromethane	ND		2,130	µg/m3	500	10/2/2018 11:32 PM
Dichlorodifluoromethane	ND		1,240	µg/m3	500	10/2/2018 11:32 PM
Ethyl acetate	ND		901	µg/m3	500	10/2/2018 11:32 PM
Ethylbenzene	ND		1,090	µg/m3	500	10/2/2018 11:32 PM
Freon 113	ND		1,920	µg/m3	500	10/2/2018 11:32 PM
Freon 114	ND		1,750	µg/m3	500	10/2/2018 11:32 PM
Heptane	ND		1,020	µg/m3	500	10/2/2018 11:32 PM
Hexachlorobutadiene	ND		2,670	µg/m3	500	10/2/2018 11:32 PM
Hexane	ND		881	µg/m3	500	10/2/2018 11:32 PM
m,p-Xylene	ND		1,090	µg/m3	500	10/2/2018 11:32 PM
Methylene chloride	ND		1,740	µg/m3	500	10/2/2018 11:32 PM
MTBE	ND		901	µg/m3	500	10/2/2018 11:32 PM
Naphthalene	ND		524	µg/m3	500	10/2/2018 11:32 PM
o-Xylene	ND		1,090	µg/m3	500	10/2/2018 11:32 PM
Propene	ND		430	µg/m3	500	10/2/2018 11:32 PM
Styrene	ND		1,060	µg/m3	500	10/2/2018 11:32 PM
Tetrachloroethene	193,000		67,800	µg/m3	20000	10/3/2018 05:34 PM
Tetrahydrofuran	ND		737	µg/m3	500	10/2/2018 11:32 PM

Note:

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.

Project: Swan Cleaners- Mansfield; PN.: 00AS0002-48

Work Order: 18091145

Sample ID: SC-V-VP-03

Lab ID: 18091145-03

Collection Date: 9/27/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	ND		942	µg/m3	500	10/2/2018 11:32 PM
trans-1,2-Dichloroethene	ND		991	µg/m3	500	10/2/2018 11:32 PM
trans-1,3-Dichloropropene	ND		1,130	µg/m3	500	10/2/2018 11:32 PM
Trichloroethene	1,750		537	µg/m3	500	10/2/2018 11:32 PM
Trichlorofluoromethane	ND		1,400	µg/m3	500	10/2/2018 11:32 PM
Vinyl acetate	ND		880	µg/m3	500	10/2/2018 11:32 PM
Vinyl chloride	ND		639	µg/m3	500	10/2/2018 11:32 PM
Surr: Bromofluorobenzene	102		60-140	%REC	500	10/2/2018 11:32 PM

Note:

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.

Project: Swan Cleaners- Mansfield; PN.: 00AS0002-48

Work Order: 18091145

Sample ID: SC-V-VP-04

Lab ID: 18091145-04

Collection Date: 9/27/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			ETO-15			Analyst: MRJ
1,1,1-Trichloroethane	ND		5.0	ppbv	10	10/3/2018 12:17 AM
1,1,2,2-Tetrachloroethane	ND		5.0	ppbv	10	10/3/2018 12:17 AM
1,1,2-Trichloroethane	ND		5.0	ppbv	10	10/3/2018 12:17 AM
1,1-Dichloroethane	ND		5.0	ppbv	10	10/3/2018 12:17 AM
1,1-Dichloroethene	ND		5.0	ppbv	10	10/3/2018 12:17 AM
1,2,4-Trichlorobenzene	ND		5.0	ppbv	10	10/3/2018 12:17 AM
1,2,4-Trimethylbenzene	ND		5.0	ppbv	10	10/3/2018 12:17 AM
1,2-Dibromoethane	ND		5.0	ppbv	10	10/3/2018 12:17 AM
1,2-Dichlorobenzene	ND		5.0	ppbv	10	10/3/2018 12:17 AM
1,2-Dichloroethane	ND		5.0	ppbv	10	10/3/2018 12:17 AM
1,2-Dichloropropane	ND		5.0	ppbv	10	10/3/2018 12:17 AM
1,3,5-Trimethylbenzene	ND		5.0	ppbv	10	10/3/2018 12:17 AM
1,3-Butadiene	7.9		5.0	ppbv	10	10/3/2018 12:17 AM
1,3-Dichlorobenzene	ND		5.0	ppbv	10	10/3/2018 12:17 AM
1,4-Dichlorobenzene	ND		5.0	ppbv	10	10/3/2018 12:17 AM
1,4-Dioxane	ND		10	ppbv	10	10/3/2018 12:17 AM
2-Butanone	ND		5.0	ppbv	10	10/3/2018 12:17 AM
2-Hexanone	ND		10	ppbv	10	10/3/2018 12:17 AM
2-Propanol	ND		10	ppbv	10	10/3/2018 12:17 AM
4-Ethyltoluene	ND		5.0	ppbv	10	10/3/2018 12:17 AM
4-Methyl-2-pentanone	ND		10	ppbv	10	10/3/2018 12:17 AM
Acetone	ND		10	ppbv	10	10/3/2018 12:17 AM
Benzene	ND		5.0	ppbv	10	10/3/2018 12:17 AM
Benzyl chloride	ND		5.0	ppbv	10	10/3/2018 12:17 AM
Bromodichloromethane	ND		5.0	ppbv	10	10/3/2018 12:17 AM
Bromoform	ND		5.0	ppbv	10	10/3/2018 12:17 AM
Bromomethane	ND		5.0	ppbv	10	10/3/2018 12:17 AM
Carbon disulfide	130		5.0	ppbv	10	10/3/2018 12:17 AM
Carbon tetrachloride	910		40	ppbv	80	10/3/2018 06:19 PM
Chlorobenzene	ND		5.0	ppbv	10	10/3/2018 12:17 AM
Chloroethane	ND		5.0	ppbv	10	10/3/2018 12:17 AM
Chloroform	180		2.0	ppbv	10	10/3/2018 12:17 AM
Chloromethane	ND		5.0	ppbv	10	10/3/2018 12:17 AM
cis-1,2-Dichloroethene	10		5.0	ppbv	10	10/3/2018 12:17 AM
cis-1,3-Dichloropropene	ND		5.0	ppbv	10	10/3/2018 12:17 AM
Cumene	ND		5.0	ppbv	10	10/3/2018 12:17 AM
Cyclohexane	ND		5.0	ppbv	10	10/3/2018 12:17 AM
Dibromochloromethane	ND		5.0	ppbv	10	10/3/2018 12:17 AM
Dichlorodifluoromethane	ND		5.0	ppbv	10	10/3/2018 12:17 AM

Note:

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.

Project: Swan Cleaners- Mansfield; PN.: 00AS0002-48

Sample ID: SC-V-VP-04

Collection Date: 9/27/2018

Work Order: 18091145

Lab ID: 18091145-04

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		5.0	ppbv	10	10/3/2018 12:17 AM
Ethylbenzene	ND		5.0	ppbv	10	10/3/2018 12:17 AM
Freon 113	ND		5.0	ppbv	10	10/3/2018 12:17 AM
Freon 114	ND		5.0	ppbv	10	10/3/2018 12:17 AM
Heptane	11		5.0	ppbv	10	10/3/2018 12:17 AM
Hexachlorobutadiene	ND		5.0	ppbv	10	10/3/2018 12:17 AM
Hexane	21		5.0	ppbv	10	10/3/2018 12:17 AM
m,p-Xylene	16		5.0	ppbv	10	10/3/2018 12:17 AM
Methylene chloride	ND		10	ppbv	10	10/3/2018 12:17 AM
MTBE	ND		5.0	ppbv	10	10/3/2018 12:17 AM
Naphthalene	ND		2.0	ppbv	10	10/3/2018 12:17 AM
o-Xylene	5.0		5.0	ppbv	10	10/3/2018 12:17 AM
Propene	890		40	ppbv	80	10/3/2018 06:19 PM
Styrene	ND		5.0	ppbv	10	10/3/2018 12:17 AM
Tetrachloroethene	1,900		40	ppbv	80	10/3/2018 06:19 PM
Tetrahydrofuran	ND		5.0	ppbv	10	10/3/2018 12:17 AM
Toluene	28		5.0	ppbv	10	10/3/2018 12:17 AM
trans-1,2-Dichloroethene	ND		5.0	ppbv	10	10/3/2018 12:17 AM
trans-1,3-Dichloropropene	ND		5.0	ppbv	10	10/3/2018 12:17 AM
Trichloroethene	32		2.0	ppbv	10	10/3/2018 12:17 AM
Trichlorofluoromethane	ND		5.0	ppbv	10	10/3/2018 12:17 AM
Vinyl acetate	ND		5.0	ppbv	10	10/3/2018 12:17 AM
Vinyl chloride	ND		5.0	ppbv	10	10/3/2018 12:17 AM
<i>Surr: Bromofluorobenzene</i>	<i>102</i>		<i>60-140</i>	<i>%REC</i>	10	10/3/2018 12:17 AM
TO-15 BY GC/MS			ETO-15		Analyst: MRJ	
1,1,1-Trichloroethane	ND		27.3	µg/m3	10	10/3/2018 12:17 AM
1,1,2,2-Tetrachloroethane	ND		34.3	µg/m3	10	10/3/2018 12:17 AM
1,1,2-Trichloroethane	ND		27.3	µg/m3	10	10/3/2018 12:17 AM
1,1-Dichloroethane	ND		20.2	µg/m3	10	10/3/2018 12:17 AM
1,1-Dichloroethene	ND		19.8	µg/m3	10	10/3/2018 12:17 AM
1,2,4-Trichlorobenzene	ND		37.1	µg/m3	10	10/3/2018 12:17 AM
1,2,4-Trimethylbenzene	ND		24.6	µg/m3	10	10/3/2018 12:17 AM
1,2-Dibromoethane	ND		38.4	µg/m3	10	10/3/2018 12:17 AM
1,2-Dichlorobenzene	ND		30.1	µg/m3	10	10/3/2018 12:17 AM
1,2-Dichloroethane	ND		20.2	µg/m3	10	10/3/2018 12:17 AM
1,2-Dichloropropane	ND		23.1	µg/m3	10	10/3/2018 12:17 AM
1,3,5-Trimethylbenzene	ND		24.6	µg/m3	10	10/3/2018 12:17 AM
1,3-Butadiene	17.5		11.1	µg/m3	10	10/3/2018 12:17 AM
1,3-Dichlorobenzene	ND		30.1	µg/m3	10	10/3/2018 12:17 AM
1,4-Dichlorobenzene	ND		30.1	µg/m3	10	10/3/2018 12:17 AM

Note:

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.
Project: Swan Cleaners- Mansfield; PN.: 00AS0002-48
Sample ID: SC-V-VP-04
Collection Date: 9/27/2018

Work Order: 18091145
Lab ID: 18091145-04
Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		36.0	µg/m3	10	10/3/2018 12:17 AM
2-Butanone	ND		14.7	µg/m3	10	10/3/2018 12:17 AM
2-Hexanone	ND		41.0	µg/m3	10	10/3/2018 12:17 AM
2-Propanol	ND		24.6	µg/m3	10	10/3/2018 12:17 AM
4-Ethyltoluene	ND		24.6	µg/m3	10	10/3/2018 12:17 AM
4-Methyl-2-pentanone	ND		41.0	µg/m3	10	10/3/2018 12:17 AM
Acetone	ND		23.8	µg/m3	10	10/3/2018 12:17 AM
Benzene	ND		16.0	µg/m3	10	10/3/2018 12:17 AM
Benzyl chloride	ND		25.9	µg/m3	10	10/3/2018 12:17 AM
Bromodichloromethane	ND		33.5	µg/m3	10	10/3/2018 12:17 AM
Bromoform	ND		51.7	µg/m3	10	10/3/2018 12:17 AM
Bromomethane	ND		19.4	µg/m3	10	10/3/2018 12:17 AM
Carbon disulfide	402		15.6	µg/m3	10	10/3/2018 12:17 AM
Carbon tetrachloride	5,730		252	µg/m3	80	10/3/2018 06:19 PM
Chlorobenzene	ND		23.0	µg/m3	10	10/3/2018 12:17 AM
Chloroethane	ND		13.2	µg/m3	10	10/3/2018 12:17 AM
Chloroform	863		9.76	µg/m3	10	10/3/2018 12:17 AM
Chloromethane	ND		10.3	µg/m3	10	10/3/2018 12:17 AM
cis-1,2-Dichloroethene	39.6		19.8	µg/m3	10	10/3/2018 12:17 AM
cis-1,3-Dichloropropene	ND		22.7	µg/m3	10	10/3/2018 12:17 AM
Cumene	ND		24.6	µg/m3	10	10/3/2018 12:17 AM
Cyclohexane	ND		17.2	µg/m3	10	10/3/2018 12:17 AM
Dibromochloromethane	ND		42.6	µg/m3	10	10/3/2018 12:17 AM
Dichlorodifluoromethane	ND		24.7	µg/m3	10	10/3/2018 12:17 AM
Ethyl acetate	ND		18.0	µg/m3	10	10/3/2018 12:17 AM
Ethylbenzene	ND		21.7	µg/m3	10	10/3/2018 12:17 AM
Freon 113	ND		38.3	µg/m3	10	10/3/2018 12:17 AM
Freon 114	ND		35.0	µg/m3	10	10/3/2018 12:17 AM
Heptane	43.4		20.5	µg/m3	10	10/3/2018 12:17 AM
Hexachlorobutadiene	ND		53.3	µg/m3	10	10/3/2018 12:17 AM
Hexane	75.4		17.6	µg/m3	10	10/3/2018 12:17 AM
m,p-Xylene	69.0		21.7	µg/m3	10	10/3/2018 12:17 AM
Methylene chloride	ND		34.7	µg/m3	10	10/3/2018 12:17 AM
MTBE	ND		18.0	µg/m3	10	10/3/2018 12:17 AM
Naphthalene	ND		10.5	µg/m3	10	10/3/2018 12:17 AM
o-Xylene	21.7		21.7	µg/m3	10	10/3/2018 12:17 AM
Propene	1,530		68.8	µg/m3	80	10/3/2018 06:19 PM
Styrene	ND		21.3	µg/m3	10	10/3/2018 12:17 AM
Tetrachloroethene	12,700		271	µg/m3	80	10/3/2018 06:19 PM
Tetrahydrofuran	ND		14.7	µg/m3	10	10/3/2018 12:17 AM

Note:

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.**Project:** Swan Cleaners- Mansfield; PN.: 00AS0002-48**Work Order:** 18091145**Sample ID:** SC-V-VP-04**Lab ID:** 18091145-04**Collection Date:** 9/27/2018**Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	104		18.8	µg/m3	10	10/3/2018 12:17 AM
trans-1,2-Dichloroethene	ND		19.8	µg/m3	10	10/3/2018 12:17 AM
trans-1,3-Dichloropropene	ND		22.7	µg/m3	10	10/3/2018 12:17 AM
Trichloroethene	172		10.7	µg/m3	10	10/3/2018 12:17 AM
Trichlorofluoromethane	ND		28.1	µg/m3	10	10/3/2018 12:17 AM
Vinyl acetate	ND		17.6	µg/m3	10	10/3/2018 12:17 AM
Vinyl chloride	ND		12.8	µg/m3	10	10/3/2018 12:17 AM
Surr: Bromofluorobenzene	102		60-140	%REC	10	10/3/2018 12:17 AM

Note:

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.
Project: Swan Cleaners- Mansfield; PN.: 00AS0002-48
Sample ID: SC-V-VP-05
Collection Date: 9/27/2018

Work Order: 18091145
Lab ID: 18091145-05
Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			ETO-15		Analyst: MRJ	
1,1,1-Trichloroethane	ND		5.0	ppbv	10	10/3/2018 01:03 AM
1,1,2,2-Tetrachloroethane	ND		5.0	ppbv	10	10/3/2018 01:03 AM
1,1,2-Trichloroethane	ND		5.0	ppbv	10	10/3/2018 01:03 AM
1,1-Dichloroethane	ND		5.0	ppbv	10	10/3/2018 01:03 AM
1,1-Dichloroethene	ND		5.0	ppbv	10	10/3/2018 01:03 AM
1,2,4-Trichlorobenzene	ND		5.0	ppbv	10	10/3/2018 01:03 AM
1,2,4-Trimethylbenzene	ND		5.0	ppbv	10	10/3/2018 01:03 AM
1,2-Dibromoethane	ND		5.0	ppbv	10	10/3/2018 01:03 AM
1,2-Dichlorobenzene	ND		5.0	ppbv	10	10/3/2018 01:03 AM
1,2-Dichloroethane	ND		5.0	ppbv	10	10/3/2018 01:03 AM
1,2-Dichloropropane	ND		5.0	ppbv	10	10/3/2018 01:03 AM
1,3,5-Trimethylbenzene	ND		5.0	ppbv	10	10/3/2018 01:03 AM
1,3-Butadiene	13		5.0	ppbv	10	10/3/2018 01:03 AM
1,3-Dichlorobenzene	ND		5.0	ppbv	10	10/3/2018 01:03 AM
1,4-Dichlorobenzene	ND		5.0	ppbv	10	10/3/2018 01:03 AM
1,4-Dioxane	ND		10	ppbv	10	10/3/2018 01:03 AM
2-Butanone	ND		5.0	ppbv	10	10/3/2018 01:03 AM
2-Hexanone	ND		10	ppbv	10	10/3/2018 01:03 AM
2-Propanol	ND		10	ppbv	10	10/3/2018 01:03 AM
4-Ethyltoluene	ND		5.0	ppbv	10	10/3/2018 01:03 AM
4-Methyl-2-pentanone	ND		10	ppbv	10	10/3/2018 01:03 AM
Acetone	10		10	ppbv	10	10/3/2018 01:03 AM
Benzene	5.9		5.0	ppbv	10	10/3/2018 01:03 AM
Benzyl chloride	ND		5.0	ppbv	10	10/3/2018 01:03 AM
Bromodichloromethane	ND		5.0	ppbv	10	10/3/2018 01:03 AM
Bromoform	ND		5.0	ppbv	10	10/3/2018 01:03 AM
Bromomethane	ND		5.0	ppbv	10	10/3/2018 01:03 AM
Carbon disulfide	65		5.0	ppbv	10	10/3/2018 01:03 AM
Carbon tetrachloride	52		5.0	ppbv	10	10/3/2018 01:03 AM
Chlorobenzene	ND		5.0	ppbv	10	10/3/2018 01:03 AM
Chloroethane	ND		5.0	ppbv	10	10/3/2018 01:03 AM
Chloroform	5.7		2.0	ppbv	10	10/3/2018 01:03 AM
Chloromethane	ND		5.0	ppbv	10	10/3/2018 01:03 AM
cis-1,2-Dichloroethene	ND		5.0	ppbv	10	10/3/2018 01:03 AM
cis-1,3-Dichloropropene	ND		5.0	ppbv	10	10/3/2018 01:03 AM
Cumene	ND		5.0	ppbv	10	10/3/2018 01:03 AM
Cyclohexane	ND		5.0	ppbv	10	10/3/2018 01:03 AM
Dibromochloromethane	ND		5.0	ppbv	10	10/3/2018 01:03 AM
Dichlorodifluoromethane	ND		5.0	ppbv	10	10/3/2018 01:03 AM

Note:

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.

Project: Swan Cleaners- Mansfield; PN.: 00AS0002-48

Work Order: 18091145

Sample ID: SC-V-VP-05

Lab ID: 18091145-05

Collection Date: 9/27/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		5.0	ppbv	10	10/3/2018 01:03 AM
Ethylbenzene	ND		5.0	ppbv	10	10/3/2018 01:03 AM
Freon 113	ND		5.0	ppbv	10	10/3/2018 01:03 AM
Freon 114	ND		5.0	ppbv	10	10/3/2018 01:03 AM
Heptane	8.6		5.0	ppbv	10	10/3/2018 01:03 AM
Hexachlorobutadiene	ND		5.0	ppbv	10	10/3/2018 01:03 AM
Hexane	19		5.0	ppbv	10	10/3/2018 01:03 AM
m,p-Xylene	15		5.0	ppbv	10	10/3/2018 01:03 AM
Methylene chloride	ND		10	ppbv	10	10/3/2018 01:03 AM
MTBE	ND		5.0	ppbv	10	10/3/2018 01:03 AM
Naphthalene	ND		2.0	ppbv	10	10/3/2018 01:03 AM
o-Xylene	ND		5.0	ppbv	10	10/3/2018 01:03 AM
Propene	1,000		40	ppbv	80	10/3/2018 07:04 PM
Styrene	ND		5.0	ppbv	10	10/3/2018 01:03 AM
Tetrachloroethene	220		5.0	ppbv	10	10/3/2018 01:03 AM
Tetrahydrofuran	ND		5.0	ppbv	10	10/3/2018 01:03 AM
Toluene	23		5.0	ppbv	10	10/3/2018 01:03 AM
trans-1,2-Dichloroethene	ND		5.0	ppbv	10	10/3/2018 01:03 AM
trans-1,3-Dichloropropene	ND		5.0	ppbv	10	10/3/2018 01:03 AM
Trichloroethene	15		2.0	ppbv	10	10/3/2018 01:03 AM
Trichlorofluoromethane	ND		5.0	ppbv	10	10/3/2018 01:03 AM
Vinyl acetate	ND		5.0	ppbv	10	10/3/2018 01:03 AM
Vinyl chloride	ND		5.0	ppbv	10	10/3/2018 01:03 AM
<i>Surr: Bromofluorobenzene</i>	<i>100</i>		<i>60-140</i>	<i>%REC</i>	10	10/3/2018 01:03 AM

TO-15 BY GC/MS

ETO-15

Analyst: MRJ

1,1,1-Trichloroethane	ND	27.3	µg/m3	10	10/3/2018 01:03 AM
1,1,2,2-Tetrachloroethane	ND	34.3	µg/m3	10	10/3/2018 01:03 AM
1,1,2-Trichloroethane	ND	27.3	µg/m3	10	10/3/2018 01:03 AM
1,1-Dichloroethane	ND	20.2	µg/m3	10	10/3/2018 01:03 AM
1,1-Dichloroethene	ND	19.8	µg/m3	10	10/3/2018 01:03 AM
1,2,4-Trichlorobenzene	ND	37.1	µg/m3	10	10/3/2018 01:03 AM
1,2,4-Trimethylbenzene	ND	24.6	µg/m3	10	10/3/2018 01:03 AM
1,2-Dibromoethane	ND	38.4	µg/m3	10	10/3/2018 01:03 AM
1,2-Dichlorobenzene	ND	30.1	µg/m3	10	10/3/2018 01:03 AM
1,2-Dichloroethane	ND	20.2	µg/m3	10	10/3/2018 01:03 AM
1,2-Dichloropropane	ND	23.1	µg/m3	10	10/3/2018 01:03 AM
1,3,5-Trimethylbenzene	ND	24.6	µg/m3	10	10/3/2018 01:03 AM
1,3-Butadiene	29.2	11.1	µg/m3	10	10/3/2018 01:03 AM
1,3-Dichlorobenzene	ND	30.1	µg/m3	10	10/3/2018 01:03 AM
1,4-Dichlorobenzene	ND	30.1	µg/m3	10	10/3/2018 01:03 AM

Note:

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.
Project: Swan Cleaners- Mansfield; PN.: 00AS0002-48
Sample ID: SC-V-VP-05
Collection Date: 9/27/2018

Work Order: 18091145
Lab ID: 18091145-05
Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		36.0	µg/m3	10	10/3/2018 01:03 AM
2-Butanone	ND		14.7	µg/m3	10	10/3/2018 01:03 AM
2-Hexanone	ND		41.0	µg/m3	10	10/3/2018 01:03 AM
2-Propanol	ND		24.6	µg/m3	10	10/3/2018 01:03 AM
4-Ethyltoluene	ND		24.6	µg/m3	10	10/3/2018 01:03 AM
4-Methyl-2-pentanone	ND		41.0	µg/m3	10	10/3/2018 01:03 AM
Acetone	24.7		23.8	µg/m3	10	10/3/2018 01:03 AM
Benzene	18.8		16.0	µg/m3	10	10/3/2018 01:03 AM
Benzyl chloride	ND		25.9	µg/m3	10	10/3/2018 01:03 AM
Bromodichloromethane	ND		33.5	µg/m3	10	10/3/2018 01:03 AM
Bromoform	ND		51.7	µg/m3	10	10/3/2018 01:03 AM
Bromomethane	ND		19.4	µg/m3	10	10/3/2018 01:03 AM
Carbon disulfide	204		15.6	µg/m3	10	10/3/2018 01:03 AM
Carbon tetrachloride	327		31.5	µg/m3	10	10/3/2018 01:03 AM
Chlorobenzene	ND		23.0	µg/m3	10	10/3/2018 01:03 AM
Chloroethane	ND		13.2	µg/m3	10	10/3/2018 01:03 AM
Chloroform	27.8		9.76	µg/m3	10	10/3/2018 01:03 AM
Chloromethane	ND		10.3	µg/m3	10	10/3/2018 01:03 AM
cis-1,2-Dichloroethene	ND		19.8	µg/m3	10	10/3/2018 01:03 AM
cis-1,3-Dichloropropene	ND		22.7	µg/m3	10	10/3/2018 01:03 AM
Cumene	ND		24.6	µg/m3	10	10/3/2018 01:03 AM
Cyclohexane	ND		17.2	µg/m3	10	10/3/2018 01:03 AM
Dibromochloromethane	ND		42.6	µg/m3	10	10/3/2018 01:03 AM
Dichlorodifluoromethane	ND		24.7	µg/m3	10	10/3/2018 01:03 AM
Ethyl acetate	ND		18.0	µg/m3	10	10/3/2018 01:03 AM
Ethylbenzene	ND		21.7	µg/m3	10	10/3/2018 01:03 AM
Freon 113	ND		38.3	µg/m3	10	10/3/2018 01:03 AM
Freon 114	ND		35.0	µg/m3	10	10/3/2018 01:03 AM
Heptane	35.2		20.5	µg/m3	10	10/3/2018 01:03 AM
Hexachlorobutadiene	ND		53.3	µg/m3	10	10/3/2018 01:03 AM
Hexane	66.3		17.6	µg/m3	10	10/3/2018 01:03 AM
m,p-Xylene	65.1		21.7	µg/m3	10	10/3/2018 01:03 AM
Methylene chloride	ND		34.7	µg/m3	10	10/3/2018 01:03 AM
MTBE	ND		18.0	µg/m3	10	10/3/2018 01:03 AM
Naphthalene	ND		10.5	µg/m3	10	10/3/2018 01:03 AM
o-Xylene	ND		21.7	µg/m3	10	10/3/2018 01:03 AM
Propene	1,730		68.8	µg/m3	80	10/3/2018 07:04 PM
Styrene	ND		21.3	µg/m3	10	10/3/2018 01:03 AM
Tetrachloroethene	1,470		33.9	µg/m3	10	10/3/2018 01:03 AM
Tetrahydrofuran	ND		14.7	µg/m3	10	10/3/2018 01:03 AM

Note:

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.**Project:** Swan Cleaners- Mansfield; PN.: 00AS0002-48**Work Order:** 18091145**Sample ID:** SC-V-VP-05**Lab ID:** 18091145-05**Collection Date:** 9/27/2018**Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	85.5		18.8	µg/m3	10	10/3/2018 01:03 AM
trans-1,2-Dichloroethene	ND		19.8	µg/m3	10	10/3/2018 01:03 AM
trans-1,3-Dichloropropene	ND		22.7	µg/m3	10	10/3/2018 01:03 AM
Trichloroethene	81.1		10.7	µg/m3	10	10/3/2018 01:03 AM
Trichlorofluoromethane	ND		28.1	µg/m3	10	10/3/2018 01:03 AM
Vinyl acetate	ND		17.6	µg/m3	10	10/3/2018 01:03 AM
Vinyl chloride	ND		12.8	µg/m3	10	10/3/2018 01:03 AM
Surr: Bromofluorobenzene	100		60-140	%REC	10	10/3/2018 01:03 AM

Note:

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.

Project: Swan Cleaners- Mansfield; PN.: 00AS0002-48

Sample ID: SC-V-VP-06

Collection Date: 9/27/2018

Work Order: 18091145

Lab ID: 18091145-06

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			ETO-15			Analyst: MRJ
1,1,1-Trichloroethane	ND		5.0	ppbv	10	10/3/2018 03:20 AM
1,1,2,2-Tetrachloroethane	ND		5.0	ppbv	10	10/3/2018 03:20 AM
1,1,2-Trichloroethane	ND		5.0	ppbv	10	10/3/2018 03:20 AM
1,1-Dichloroethane	ND		5.0	ppbv	10	10/3/2018 03:20 AM
1,1-Dichloroethene	ND		5.0	ppbv	10	10/3/2018 03:20 AM
1,2,4-Trichlorobenzene	ND		5.0	ppbv	10	10/3/2018 03:20 AM
1,2,4-Trimethylbenzene	830		250	ppbv	500	10/3/2018 07:49 PM
1,2-Dibromoethane	ND		5.0	ppbv	10	10/3/2018 03:20 AM
1,2-Dichlorobenzene	ND		5.0	ppbv	10	10/3/2018 03:20 AM
1,2-Dichloroethane	ND		5.0	ppbv	10	10/3/2018 03:20 AM
1,2-Dichloropropane	ND		5.0	ppbv	10	10/3/2018 03:20 AM
1,3,5-Trimethylbenzene	400		250	ppbv	500	10/3/2018 07:49 PM
1,3-Butadiene	ND		5.0	ppbv	10	10/3/2018 03:20 AM
1,3-Dichlorobenzene	ND		5.0	ppbv	10	10/3/2018 03:20 AM
1,4-Dichlorobenzene	ND		5.0	ppbv	10	10/3/2018 03:20 AM
1,4-Dioxane	ND		10	ppbv	10	10/3/2018 03:20 AM
2-Butanone	5.6		5.0	ppbv	10	10/3/2018 03:20 AM
2-Hexanone	ND		10	ppbv	10	10/3/2018 03:20 AM
2-Propanol	ND		10	ppbv	10	10/3/2018 03:20 AM
4-Ethyltoluene	260		250	ppbv	500	10/3/2018 07:49 PM
4-Methyl-2-pentanone	ND		10	ppbv	10	10/3/2018 03:20 AM
Acetone	65		10	ppbv	10	10/3/2018 03:20 AM
Benzene	65		5.0	ppbv	10	10/3/2018 03:20 AM
Benzyl chloride	ND		5.0	ppbv	10	10/3/2018 03:20 AM
Bromodichloromethane	ND		5.0	ppbv	10	10/3/2018 03:20 AM
Bromoform	ND		5.0	ppbv	10	10/3/2018 03:20 AM
Bromomethane	ND		5.0	ppbv	10	10/3/2018 03:20 AM
Carbon disulfide	34		5.0	ppbv	10	10/3/2018 03:20 AM
Carbon tetrachloride	130		5.0	ppbv	10	10/3/2018 03:20 AM
Chlorobenzene	ND		5.0	ppbv	10	10/3/2018 03:20 AM
Chloroethane	8.5		5.0	ppbv	10	10/3/2018 03:20 AM
Chloroform	ND		2.0	ppbv	10	10/3/2018 03:20 AM
Chloromethane	ND		5.0	ppbv	10	10/3/2018 03:20 AM
cis-1,2-Dichloroethene	35		5.0	ppbv	10	10/3/2018 03:20 AM
cis-1,3-Dichloropropene	ND		5.0	ppbv	10	10/3/2018 03:20 AM
Cumene	210		5.0	ppbv	10	10/3/2018 03:20 AM
Cyclohexane	8,000		250	ppbv	500	10/3/2018 07:49 PM
Dibromochloromethane	ND		5.0	ppbv	10	10/3/2018 03:20 AM
Dichlorodifluoromethane	ND		5.0	ppbv	10	10/3/2018 03:20 AM

Note:

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.
 Project: Swan Cleaners- Mansfield; PN.: 00AS0002-48
 Sample ID: SC-V-VP-06
 Collection Date: 9/27/2018

Work Order: 18091145
 Lab ID: 18091145-06
 Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		5.0	ppbv	10	10/3/2018 03:20 AM
Ethylbenzene	380		250	ppbv	500	10/3/2018 07:49 PM
Freon 113	ND		5.0	ppbv	10	10/3/2018 03:20 AM
Freon 114	ND		5.0	ppbv	10	10/3/2018 03:20 AM
Heptane	10,000		250	ppbv	500	10/3/2018 07:49 PM
Hexachlorobutadiene	ND		5.0	ppbv	10	10/3/2018 03:20 AM
Hexane	8,800		250	ppbv	500	10/3/2018 07:49 PM
m,p-Xylene	520		250	ppbv	500	10/3/2018 07:49 PM
Methylene chloride	ND		10	ppbv	10	10/3/2018 03:20 AM
MTBE	ND		5.0	ppbv	10	10/3/2018 03:20 AM
Naphthalene	450	E	2.0	ppbv	10	10/3/2018 03:20 AM
o-Xylene	340		250	ppbv	500	10/3/2018 07:49 PM
Propene	ND		5.0	ppbv	10	10/3/2018 03:20 AM
Styrene	ND		5.0	ppbv	10	10/3/2018 03:20 AM
Tetrachloroethene	56		5.0	ppbv	10	10/3/2018 03:20 AM
Tetrahydrofuran	ND		5.0	ppbv	10	10/3/2018 03:20 AM
Toluene	71		5.0	ppbv	10	10/3/2018 03:20 AM
trans-1,2-Dichloroethene	10		5.0	ppbv	10	10/3/2018 03:20 AM
trans-1,3-Dichloropropene	ND		5.0	ppbv	10	10/3/2018 03:20 AM
Trichloroethene	100		2.0	ppbv	10	10/3/2018 03:20 AM
Trichlorofluoromethane	ND		5.0	ppbv	10	10/3/2018 03:20 AM
Vinyl acetate	ND		5.0	ppbv	10	10/3/2018 03:20 AM
Vinyl chloride	50		5.0	ppbv	10	10/3/2018 03:20 AM
Surr: Bromofluorobenzene	101		60-140	%REC	10	10/3/2018 03:20 AM

TO-15 BY GC/MS

ETO-15

Analyst: MRJ

1,1,1-Trichloroethane	ND	27.3	µg/m3	10	10/3/2018 03:20 AM
1,1,2,2-Tetrachloroethane	ND	34.3	µg/m3	10	10/3/2018 03:20 AM
1,1,2-Trichloroethane	ND	27.3	µg/m3	10	10/3/2018 03:20 AM
1,1-Dichloroethane	ND	20.2	µg/m3	10	10/3/2018 03:20 AM
1,1-Dichloroethene	ND	19.8	µg/m3	10	10/3/2018 03:20 AM
1,2,4-Trichlorobenzene	ND	37.1	µg/m3	10	10/3/2018 03:20 AM
1,2,4-Trimethylbenzene	4,080	1,230	µg/m3	500	10/3/2018 07:49 PM
1,2-Dibromoethane	ND	38.4	µg/m3	10	10/3/2018 03:20 AM
1,2-Dichlorobenzene	ND	30.1	µg/m3	10	10/3/2018 03:20 AM
1,2-Dichloroethane	ND	20.2	µg/m3	10	10/3/2018 03:20 AM
1,2-Dichloropropane	ND	23.1	µg/m3	10	10/3/2018 03:20 AM
1,3,5-Trimethylbenzene	1,940	1,230	µg/m3	500	10/3/2018 07:49 PM
1,3-Butadiene	ND	11.1	µg/m3	10	10/3/2018 03:20 AM
1,3-Dichlorobenzene	ND	30.1	µg/m3	10	10/3/2018 03:20 AM
1,4-Dichlorobenzene	ND	30.1	µg/m3	10	10/3/2018 03:20 AM

Note:

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.

Project: Swan Cleaners- Mansfield; PN.: 00AS0002-48

Sample ID: SC-V-VP-06

Collection Date: 9/27/2018

Work Order: 18091145

Lab ID: 18091145-06

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		36.0	µg/m3	10	10/3/2018 03:20 AM
2-Butanone	16.5		14.7	µg/m3	10	10/3/2018 03:20 AM
2-Hexanone	ND		41.0	µg/m3	10	10/3/2018 03:20 AM
2-Propanol	ND		24.6	µg/m3	10	10/3/2018 03:20 AM
4-Ethyltoluene	1,250		1,230	µg/m3	500	10/3/2018 07:49 PM
4-Methyl-2-pentanone	ND		41.0	µg/m3	10	10/3/2018 03:20 AM
Acetone	155		23.8	µg/m3	10	10/3/2018 03:20 AM
Benzene	207		16.0	µg/m3	10	10/3/2018 03:20 AM
Benzyl chloride	ND		25.9	µg/m3	10	10/3/2018 03:20 AM
Bromodichloromethane	ND		33.5	µg/m3	10	10/3/2018 03:20 AM
Bromoform	ND		51.7	µg/m3	10	10/3/2018 03:20 AM
Bromomethane	ND		19.4	µg/m3	10	10/3/2018 03:20 AM
Carbon disulfide	104		15.6	µg/m3	10	10/3/2018 03:20 AM
Carbon tetrachloride	789		31.5	µg/m3	10	10/3/2018 03:20 AM
Chlorobenzene	ND		23.0	µg/m3	10	10/3/2018 03:20 AM
Chloroethane	22.4		13.2	µg/m3	10	10/3/2018 03:20 AM
Chloroform	ND		9.76	µg/m3	10	10/3/2018 03:20 AM
Chloromethane	ND		10.3	µg/m3	10	10/3/2018 03:20 AM
cis-1,2-Dichloroethene	140		19.8	µg/m3	10	10/3/2018 03:20 AM
cis-1,3-Dichloropropene	ND		22.7	µg/m3	10	10/3/2018 03:20 AM
Cumene	1,040		24.6	µg/m3	10	10/3/2018 03:20 AM
Cyclohexane	27,600		861	µg/m3	500	10/3/2018 07:49 PM
Dibromochloromethane	ND		42.6	µg/m3	10	10/3/2018 03:20 AM
Dichlorodifluoromethane	ND		24.7	µg/m3	10	10/3/2018 03:20 AM
Ethyl acetate	ND		18.0	µg/m3	10	10/3/2018 03:20 AM
Ethylbenzene	1,670		1,090	µg/m3	500	10/3/2018 07:49 PM
Freon 113	ND		38.3	µg/m3	10	10/3/2018 03:20 AM
Freon 114	ND		35.0	µg/m3	10	10/3/2018 03:20 AM
Heptane	42,300		1,020	µg/m3	500	10/3/2018 07:49 PM
Hexachlorobutadiene	ND		53.3	µg/m3	10	10/3/2018 03:20 AM
Hexane	31,200		881	µg/m3	500	10/3/2018 07:49 PM
m,p-Xylene	2,260		1,090	µg/m3	500	10/3/2018 07:49 PM
Methylene chloride	ND		34.7	µg/m3	10	10/3/2018 03:20 AM
MTBE	ND		18.0	µg/m3	10	10/3/2018 03:20 AM
Naphthalene	2,340	E	10.5	µg/m3	10	10/3/2018 03:20 AM
o-Xylene	1,450		1,090	µg/m3	500	10/3/2018 07:49 PM
Propene	ND		8.61	µg/m3	10	10/3/2018 03:20 AM
Styrene	ND		21.3	µg/m3	10	10/3/2018 03:20 AM
Tetrachloroethene	380		33.9	µg/m3	10	10/3/2018 03:20 AM
Tetrahydrofuran	ND		14.7	µg/m3	10	10/3/2018 03:20 AM

Note:

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.**Project:** Swan Cleaners- Mansfield; PN.: 00AS0002-48**Work Order:** 18091145**Sample ID:** SC-V-VP-06**Lab ID:** 18091145-06**Collection Date:** 9/27/2018**Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	268		18.8	µg/m3	10	10/3/2018 03:20 AM
trans-1,2-Dichloroethene	41.6		19.8	µg/m3	10	10/3/2018 03:20 AM
trans-1,3-Dichloropropene	ND		22.7	µg/m3	10	10/3/2018 03:20 AM
Trichloroethene	550		10.7	µg/m3	10	10/3/2018 03:20 AM
Trichlorofluoromethane	ND		28.1	µg/m3	10	10/3/2018 03:20 AM
Vinyl acetate	ND		17.6	µg/m3	10	10/3/2018 03:20 AM
Vinyl chloride	128		12.8	µg/m3	10	10/3/2018 03:20 AM
Surr: Bromofluorobenzene	101		60-140	%REC	10	10/3/2018 03:20 AM

Note:

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.

Project: Swan Cleaners- Mansfield; PN.: 00AS0002-48

Sample ID: SC-V-VP-08

Collection Date: 9/27/2018

Work Order: 18091145

Lab ID: 18091145-07

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			ETO-15			Analyst: MRJ
1,1,1-Trichloroethane	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
1,1,2,2-Tetrachloroethane	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
1,1,2-Trichloroethane	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
1,1-Dichloroethane	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
1,1-Dichloroethene	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
1,2,4-Trichlorobenzene	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
1,2,4-Trimethylbenzene	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
1,2-Dibromoethane	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
1,2-Dichlorobenzene	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
1,2-Dichloroethane	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
1,2-Dichloropropane	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
1,3,5-Trimethylbenzene	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
1,3-Butadiene	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
1,3-Dichlorobenzene	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
1,4-Dichlorobenzene	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
1,4-Dioxane	ND		5,000	ppbv	5000	10/3/2018 01:48 AM
2-Butanone	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
2-Hexanone	ND		5,000	ppbv	5000	10/3/2018 01:48 AM
2-Propanol	ND		5,000	ppbv	5000	10/3/2018 01:48 AM
4-Ethyltoluene	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
4-Methyl-2-pentanone	ND		5,000	ppbv	5000	10/3/2018 01:48 AM
Acetone	ND		5,000	ppbv	5000	10/3/2018 01:48 AM
Benzene	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
Benzyl chloride	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
Bromodichloromethane	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
Bromoform	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
Bromomethane	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
Carbon disulfide	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
Carbon tetrachloride	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
Chlorobenzene	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
Chloroethane	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
Chloroform	ND		1,000	ppbv	5000	10/3/2018 01:48 AM
Chloromethane	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
cis-1,2-Dichloroethene	29,000		2,500	ppbv	5000	10/3/2018 01:48 AM
cis-1,3-Dichloropropene	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
Cumene	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
Cyclohexane	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
Dibromochloromethane	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
Dichlorodifluoromethane	ND		2,500	ppbv	5000	10/3/2018 01:48 AM

Note:

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.

Project: Swan Cleaners- Mansfield; PN.: 00AS0002-48

Sample ID: SC-V-VP-08

Collection Date: 9/27/2018

Work Order: 18091145

Lab ID: 18091145-07

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
Ethylbenzene	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
Freon 113	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
Freon 114	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
Heptane	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
Hexachlorobutadiene	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
Hexane	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
m,p-Xylene	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
Methylene chloride	ND		5,000	ppbv	5000	10/3/2018 01:48 AM
MTBE	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
Naphthalene	ND		1,000	ppbv	5000	10/3/2018 01:48 AM
o-Xylene	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
Propene	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
Styrene	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
Tetrachloroethene	840,000		20,000	ppbv	40000	10/3/2018 08:21 AM
Tetrahydrofuran	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
Toluene	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
trans-1,2-Dichloroethene	3,300		2,500	ppbv	5000	10/3/2018 01:48 AM
trans-1,3-Dichloropropene	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
Trichloroethene	27,000		1,000	ppbv	5000	10/3/2018 01:48 AM
Trichlorofluoromethane	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
Vinyl acetate	ND		2,500	ppbv	5000	10/3/2018 01:48 AM
Vinyl chloride	21,000		2,500	ppbv	5000	10/3/2018 01:48 AM
Surr: Bromofluorobenzene	101		60-140	%REC	5000	10/3/2018 01:48 AM
TO-15 BY GC/MS			ETO-15		Analyst: MRJ	
1,1,1-Trichloroethane	ND		13,600	µg/m3	5000	10/3/2018 01:48 AM
1,1,2,2-Tetrachloroethane	ND		17,200	µg/m3	5000	10/3/2018 01:48 AM
1,1,2-Trichloroethane	ND		13,600	µg/m3	5000	10/3/2018 01:48 AM
1,1-Dichloroethane	ND		10,100	µg/m3	5000	10/3/2018 01:48 AM
1,1-Dichloroethene	ND		9,910	µg/m3	5000	10/3/2018 01:48 AM
1,2,4-Trichlorobenzene	ND		18,600	µg/m3	5000	10/3/2018 01:48 AM
1,2,4-Trimethylbenzene	ND		12,300	µg/m3	5000	10/3/2018 01:48 AM
1,2-Dibromoethane	ND		19,200	µg/m3	5000	10/3/2018 01:48 AM
1,2-Dichlorobenzene	ND		15,000	µg/m3	5000	10/3/2018 01:48 AM
1,2-Dichloroethane	ND		10,100	µg/m3	5000	10/3/2018 01:48 AM
1,2-Dichloropropane	ND		11,600	µg/m3	5000	10/3/2018 01:48 AM
1,3,5-Trimethylbenzene	ND		12,300	µg/m3	5000	10/3/2018 01:48 AM
1,3-Butadiene	ND		5,530	µg/m3	5000	10/3/2018 01:48 AM
1,3-Dichlorobenzene	ND		15,000	µg/m3	5000	10/3/2018 01:48 AM
1,4-Dichlorobenzene	ND		15,000	µg/m3	5000	10/3/2018 01:48 AM

Note:

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.
Project: Swan Cleaners- Mansfield; PN.: 00AS0002-48
Sample ID: SC-V-VP-08
Collection Date: 9/27/2018

Work Order: 18091145
Lab ID: 18091145-07
Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		18,000	µg/m3	5000	10/3/2018 01:48 AM
2-Butanone	ND		7,370	µg/m3	5000	10/3/2018 01:48 AM
2-Hexanone	ND		20,500	µg/m3	5000	10/3/2018 01:48 AM
2-Propanol	ND		12,300	µg/m3	5000	10/3/2018 01:48 AM
4-Ethyltoluene	ND		12,300	µg/m3	5000	10/3/2018 01:48 AM
4-Methyl-2-pentanone	ND		20,500	µg/m3	5000	10/3/2018 01:48 AM
Acetone	ND		11,900	µg/m3	5000	10/3/2018 01:48 AM
Benzene	ND		7,990	µg/m3	5000	10/3/2018 01:48 AM
Benzyl chloride	ND		12,900	µg/m3	5000	10/3/2018 01:48 AM
Bromodichloromethane	ND		16,800	µg/m3	5000	10/3/2018 01:48 AM
Bromoform	ND		25,800	µg/m3	5000	10/3/2018 01:48 AM
Bromomethane	ND		9,710	µg/m3	5000	10/3/2018 01:48 AM
Carbon disulfide	ND		7,780	µg/m3	5000	10/3/2018 01:48 AM
Carbon tetrachloride	ND		15,700	µg/m3	5000	10/3/2018 01:48 AM
Chlorobenzene	ND		11,500	µg/m3	5000	10/3/2018 01:48 AM
Chloroethane	ND		6,600	µg/m3	5000	10/3/2018 01:48 AM
Chloroform	ND		4,880	µg/m3	5000	10/3/2018 01:48 AM
Chloromethane	ND		5,160	µg/m3	5000	10/3/2018 01:48 AM
cis-1,2-Dichloroethene	114,000		9,910	µg/m3	5000	10/3/2018 01:48 AM
cis-1,3-Dichloropropene	ND		11,300	µg/m3	5000	10/3/2018 01:48 AM
Cumene	ND		12,300	µg/m3	5000	10/3/2018 01:48 AM
Cyclohexane	ND		8,610	µg/m3	5000	10/3/2018 01:48 AM
Dibromochloromethane	ND		21,300	µg/m3	5000	10/3/2018 01:48 AM
Dichlorodifluoromethane	ND		12,400	µg/m3	5000	10/3/2018 01:48 AM
Ethyl acetate	ND		9,010	µg/m3	5000	10/3/2018 01:48 AM
Ethylbenzene	ND		10,900	µg/m3	5000	10/3/2018 01:48 AM
Freon 113	ND		19,200	µg/m3	5000	10/3/2018 01:48 AM
Freon 114	ND		17,500	µg/m3	5000	10/3/2018 01:48 AM
Heptane	ND		10,200	µg/m3	5000	10/3/2018 01:48 AM
Hexachlorobutadiene	ND		26,700	µg/m3	5000	10/3/2018 01:48 AM
Hexane	ND		8,810	µg/m3	5000	10/3/2018 01:48 AM
m,p-Xylene	ND		10,900	µg/m3	5000	10/3/2018 01:48 AM
Methylene chloride	ND		17,400	µg/m3	5000	10/3/2018 01:48 AM
MTBE	ND		9,010	µg/m3	5000	10/3/2018 01:48 AM
Naphthalene	ND		5,240	µg/m3	5000	10/3/2018 01:48 AM
o-Xylene	ND		10,900	µg/m3	5000	10/3/2018 01:48 AM
Propene	ND		4,300	µg/m3	5000	10/3/2018 01:48 AM
Styrene	ND		10,600	µg/m3	5000	10/3/2018 01:48 AM
Tetrachloroethene	5,690,000		136,000	µg/m3	40000	10/3/2018 08:21 AM
Tetrahydrofuran	ND		7,370	µg/m3	5000	10/3/2018 01:48 AM

Note:

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.

Project: Swan Cleaners- Mansfield; PN.: 00AS0002-48

Work Order: 18091145

Sample ID: SC-V-VP-08

Lab ID: 18091145-07

Collection Date: 9/27/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	ND		9,420	µg/m3	5000	10/3/2018 01:48 AM
trans-1,2-Dichloroethene	13,100		9,910	µg/m3	5000	10/3/2018 01:48 AM
trans-1,3-Dichloropropene	ND		11,300	µg/m3	5000	10/3/2018 01:48 AM
Trichloroethene	147,000		5,370	µg/m3	5000	10/3/2018 01:48 AM
Trichlorofluoromethane	ND		14,000	µg/m3	5000	10/3/2018 01:48 AM
Vinyl acetate	ND		8,800	µg/m3	5000	10/3/2018 01:48 AM
Vinyl chloride	53,900		6,390	µg/m3	5000	10/3/2018 01:48 AM
Surr: Bromofluorobenzene	101		60-140	%REC	5000	10/3/2018 01:48 AM

Note:

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.

Project: Swan Cleaners- Mansfield; PN.: 00AS0002-48

Sample ID: SC-V-VP-07

Collection Date: 9/27/2018

Work Order: 18091145

Lab ID: 18091145-08

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			ETO-15		Analyst: MRJ	
1,1,1-Trichloroethane	ND		500	ppbv	1000	10/3/2018 02:34 AM
1,1,2,2-Tetrachloroethane	ND		500	ppbv	1000	10/3/2018 02:34 AM
1,1,2-Trichloroethane	ND		500	ppbv	1000	10/3/2018 02:34 AM
1,1-Dichloroethane	ND		500	ppbv	1000	10/3/2018 02:34 AM
1,1-Dichloroethene	ND		500	ppbv	1000	10/3/2018 02:34 AM
1,2,4-Trichlorobenzene	ND		500	ppbv	1000	10/3/2018 02:34 AM
1,2,4-Trimethylbenzene	ND		500	ppbv	1000	10/3/2018 02:34 AM
1,2-Dibromoethane	ND		500	ppbv	1000	10/3/2018 02:34 AM
1,2-Dichlorobenzene	ND		500	ppbv	1000	10/3/2018 02:34 AM
1,2-Dichloroethane	ND		500	ppbv	1000	10/3/2018 02:34 AM
1,2-Dichloropropane	ND		500	ppbv	1000	10/3/2018 02:34 AM
1,3,5-Trimethylbenzene	ND		500	ppbv	1000	10/3/2018 02:34 AM
1,3-Butadiene	ND		500	ppbv	1000	10/3/2018 02:34 AM
1,3-Dichlorobenzene	ND		500	ppbv	1000	10/3/2018 02:34 AM
1,4-Dichlorobenzene	ND		500	ppbv	1000	10/3/2018 02:34 AM
1,4-Dioxane	ND		1,000	ppbv	1000	10/3/2018 02:34 AM
2-Butanone	ND		500	ppbv	1000	10/3/2018 02:34 AM
2-Hexanone	ND		1,000	ppbv	1000	10/3/2018 02:34 AM
2-Propanol	ND		1,000	ppbv	1000	10/3/2018 02:34 AM
4-Ethyltoluene	ND		500	ppbv	1000	10/3/2018 02:34 AM
4-Methyl-2-pentanone	ND		1,000	ppbv	1000	10/3/2018 02:34 AM
Acetone	ND		1,000	ppbv	1000	10/3/2018 02:34 AM
Benzene	ND		500	ppbv	1000	10/3/2018 02:34 AM
Benzyl chloride	ND		500	ppbv	1000	10/3/2018 02:34 AM
Bromodichloromethane	ND		500	ppbv	1000	10/3/2018 02:34 AM
Bromoform	ND		500	ppbv	1000	10/3/2018 02:34 AM
Bromomethane	ND		500	ppbv	1000	10/3/2018 02:34 AM
Carbon disulfide	ND		500	ppbv	1000	10/3/2018 02:34 AM
Carbon tetrachloride	ND		500	ppbv	1000	10/3/2018 02:34 AM
Chlorobenzene	ND		500	ppbv	1000	10/3/2018 02:34 AM
Chloroethane	ND		500	ppbv	1000	10/3/2018 02:34 AM
Chloroform	ND		200	ppbv	1000	10/3/2018 02:34 AM
Chloromethane	ND		500	ppbv	1000	10/3/2018 02:34 AM
cis-1,2-Dichloroethene	25,000		500	ppbv	1000	10/3/2018 02:34 AM
cis-1,3-Dichloropropene	ND		500	ppbv	1000	10/3/2018 02:34 AM
Cumene	ND		500	ppbv	1000	10/3/2018 02:34 AM
Cyclohexane	1,600		500	ppbv	1000	10/3/2018 02:34 AM
Dibromochloromethane	ND		500	ppbv	1000	10/3/2018 02:34 AM
Dichlorodifluoromethane	ND		500	ppbv	1000	10/3/2018 02:34 AM

Note:

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.

Project: Swan Cleaners- Mansfield; PN.: 00AS0002-48

Work Order: 18091145

Sample ID: SC-V-VP-07

Lab ID: 18091145-08

Collection Date: 9/27/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		500	ppbv	1000	10/3/2018 02:34 AM
Ethylbenzene	ND		500	ppbv	1000	10/3/2018 02:34 AM
Freon 113	ND		500	ppbv	1000	10/3/2018 02:34 AM
Freon 114	ND		500	ppbv	1000	10/3/2018 02:34 AM
Heptane	ND		500	ppbv	1000	10/3/2018 02:34 AM
Hexachlorobutadiene	ND		500	ppbv	1000	10/3/2018 02:34 AM
Hexane	1,400		500	ppbv	1000	10/3/2018 02:34 AM
m,p-Xylene	ND		500	ppbv	1000	10/3/2018 02:34 AM
Methylene chloride	ND		1,000	ppbv	1000	10/3/2018 02:34 AM
MTBE	ND		500	ppbv	1000	10/3/2018 02:34 AM
Naphthalene	ND		200	ppbv	1000	10/3/2018 02:34 AM
o-Xylene	ND		500	ppbv	1000	10/3/2018 02:34 AM
Propene	ND		500	ppbv	1000	10/3/2018 02:34 AM
Styrene	ND		500	ppbv	1000	10/3/2018 02:34 AM
Tetrachloroethene	2,500		500	ppbv	1000	10/3/2018 02:34 AM
Tetrahydrofuran	ND		500	ppbv	1000	10/3/2018 02:34 AM
Toluene	ND		500	ppbv	1000	10/3/2018 02:34 AM
trans-1,2-Dichloroethene	510		500	ppbv	1000	10/3/2018 02:34 AM
trans-1,3-Dichloropropene	ND		500	ppbv	1000	10/3/2018 02:34 AM
Trichloroethene	6,800		200	ppbv	1000	10/3/2018 02:34 AM
Trichlorofluoromethane	ND		500	ppbv	1000	10/3/2018 02:34 AM
Vinyl acetate	ND		500	ppbv	1000	10/3/2018 02:34 AM
Vinyl chloride	7,900		500	ppbv	1000	10/3/2018 02:34 AM
Surr: Bromofluorobenzene	99.7		60-140	%REC	1000	10/3/2018 02:34 AM
TO-15 BY GC/MS			ETO-15			Analyst: MRJ
1,1,1-Trichloroethane	ND		2,730	µg/m3	1000	10/3/2018 02:34 AM
1,1,2,2-Tetrachloroethane	ND		3,430	µg/m3	1000	10/3/2018 02:34 AM
1,1,2-Trichloroethane	ND		2,730	µg/m3	1000	10/3/2018 02:34 AM
1,1-Dichloroethane	ND		2,020	µg/m3	1000	10/3/2018 02:34 AM
1,1-Dichloroethene	ND		1,980	µg/m3	1000	10/3/2018 02:34 AM
1,2,4-Trichlorobenzene	ND		3,710	µg/m3	1000	10/3/2018 02:34 AM
1,2,4-Trimethylbenzene	ND		2,460	µg/m3	1000	10/3/2018 02:34 AM
1,2-Dibromoethane	ND		3,840	µg/m3	1000	10/3/2018 02:34 AM
1,2-Dichlorobenzene	ND		3,010	µg/m3	1000	10/3/2018 02:34 AM
1,2-Dichloroethane	ND		2,020	µg/m3	1000	10/3/2018 02:34 AM
1,2-Dichloropropane	ND		2,310	µg/m3	1000	10/3/2018 02:34 AM
1,3,5-Trimethylbenzene	ND		2,460	µg/m3	1000	10/3/2018 02:34 AM
1,3-Butadiene	ND		1,110	µg/m3	1000	10/3/2018 02:34 AM
1,3-Dichlorobenzene	ND		3,010	µg/m3	1000	10/3/2018 02:34 AM
1,4-Dichlorobenzene	ND		3,010	µg/m3	1000	10/3/2018 02:34 AM

Note:

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.

Project: Swan Cleaners- Mansfield; PN.: 00AS0002-48

Work Order: 18091145

Sample ID: SC-V-VP-07

Lab ID: 18091145-08

Collection Date: 9/27/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		3,600	µg/m3	1000	10/3/2018 02:34 AM
2-Butanone	ND		1,470	µg/m3	1000	10/3/2018 02:34 AM
2-Hexanone	ND		4,100	µg/m3	1000	10/3/2018 02:34 AM
2-Propanol	ND		2,460	µg/m3	1000	10/3/2018 02:34 AM
4-Ethyltoluene	ND		2,460	µg/m3	1000	10/3/2018 02:34 AM
4-Methyl-2-pentanone	ND		4,100	µg/m3	1000	10/3/2018 02:34 AM
Acetone	ND		2,380	µg/m3	1000	10/3/2018 02:34 AM
Benzene	ND		1,600	µg/m3	1000	10/3/2018 02:34 AM
Benzyl chloride	ND		2,590	µg/m3	1000	10/3/2018 02:34 AM
Bromodichloromethane	ND		3,350	µg/m3	1000	10/3/2018 02:34 AM
Bromoform	ND		5,170	µg/m3	1000	10/3/2018 02:34 AM
Bromomethane	ND		1,940	µg/m3	1000	10/3/2018 02:34 AM
Carbon disulfide	ND		1,560	µg/m3	1000	10/3/2018 02:34 AM
Carbon tetrachloride	ND		3,150	µg/m3	1000	10/3/2018 02:34 AM
Chlorobenzene	ND		2,300	µg/m3	1000	10/3/2018 02:34 AM
Chloroethane	ND		1,320	µg/m3	1000	10/3/2018 02:34 AM
Chloroform	ND		976	µg/m3	1000	10/3/2018 02:34 AM
Chloromethane	ND		1,030	µg/m3	1000	10/3/2018 02:34 AM
cis-1,2-Dichloroethene	98,800		1,980	µg/m3	1000	10/3/2018 02:34 AM
cis-1,3-Dichloropropene	ND		2,270	µg/m3	1000	10/3/2018 02:34 AM
Cumene	ND		2,460	µg/m3	1000	10/3/2018 02:34 AM
Cyclohexane	5,510		1,720	µg/m3	1000	10/3/2018 02:34 AM
Dibromochloromethane	ND		4,260	µg/m3	1000	10/3/2018 02:34 AM
Dichlorodifluoromethane	ND		2,470	µg/m3	1000	10/3/2018 02:34 AM
Ethyl acetate	ND		1,800	µg/m3	1000	10/3/2018 02:34 AM
Ethylbenzene	ND		2,170	µg/m3	1000	10/3/2018 02:34 AM
Freon 113	ND		3,830	µg/m3	1000	10/3/2018 02:34 AM
Freon 114	ND		3,500	µg/m3	1000	10/3/2018 02:34 AM
Heptane	ND		2,050	µg/m3	1000	10/3/2018 02:34 AM
Hexachlorobutadiene	ND		5,330	µg/m3	1000	10/3/2018 02:34 AM
Hexane	4,790		1,760	µg/m3	1000	10/3/2018 02:34 AM
m,p-Xylene	ND		2,170	µg/m3	1000	10/3/2018 02:34 AM
Methylene chloride	ND		3,470	µg/m3	1000	10/3/2018 02:34 AM
MTBE	ND		1,800	µg/m3	1000	10/3/2018 02:34 AM
Naphthalene	ND		1,050	µg/m3	1000	10/3/2018 02:34 AM
o-Xylene	ND		2,170	µg/m3	1000	10/3/2018 02:34 AM
Propene	ND		861	µg/m3	1000	10/3/2018 02:34 AM
Styrene	ND		2,130	µg/m3	1000	10/3/2018 02:34 AM
Tetrachloroethene	17,200		3,390	µg/m3	1000	10/3/2018 02:34 AM
Tetrahydrofuran	ND		1,470	µg/m3	1000	10/3/2018 02:34 AM

Note:

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.**Project:** Swan Cleaners- Mansfield; PN.: 00AS0002-48**Work Order:** 18091145**Sample ID:** SC-V-VP-07**Lab ID:** 18091145-08**Collection Date:** 9/27/2018**Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	ND		1,880	µg/m3	1000	10/3/2018 02:34 AM
trans-1,2-Dichloroethene	2,020		1,980	µg/m3	1000	10/3/2018 02:34 AM
trans-1,3-Dichloropropene	ND		2,270	µg/m3	1000	10/3/2018 02:34 AM
Trichloroethene	36,800		1,070	µg/m3	1000	10/3/2018 02:34 AM
Trichlorofluoromethane	ND		2,810	µg/m3	1000	10/3/2018 02:34 AM
Vinyl acetate	ND		1,760	µg/m3	1000	10/3/2018 02:34 AM
Vinyl chloride	20,100		1,280	µg/m3	1000	10/3/2018 02:34 AM
Surr: Bromofluorobenzene	99.7		60-140	%REC	1000	10/3/2018 02:34 AM

Note:

ALS Environmental

Date: 04-Oct-18

Client: The Mannik&Smith Group, Inc.

Work Order: 18091145

Project: Swan Cleaners- Mansfield; PN.: 00AS0002-48

QC BATCH REPORT

Batch ID: R157119

Instrument ID: VMS4

Method: ETO-15

mbk Sample ID: MBLK-R157119			Units: ppbv			Analysis Date: 10/2/2018 01:05 PM				
Client ID:		Run ID: VMS4_181002A		SeqNo: 1842572		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	0.50								
1,1,2,2-Tetrachloroethane	ND	0.50								
1,1,2-Trichloroethane	ND	0.50								
1,1-Dichloroethane	ND	0.50								
1,1-Dichloroethene	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.50								
1,2,4-Trimethylbenzene	ND	0.50								
1,2-Dibromoethane	ND	0.50								
1,2-Dichlorobenzene	ND	0.50								
1,2-Dichloroethane	ND	0.50								
1,2-Dichloropropane	ND	0.50								
1,3,5-Trimethylbenzene	ND	0.50								
1,3-Butadiene	ND	0.50								
1,3-Dichlorobenzene	ND	0.50								
1,4-Dichlorobenzene	ND	0.50								
1,4-Dioxane	ND	1.0								
2-Butanone	ND	0.50								
2-Hexanone	ND	1.0								
2-Propanol	ND	1.0								
4-Ethyltoluene	ND	0.50								
4-Methyl-2-pentanone	ND	1.0								
Acetone	ND	1.0								
Benzene	ND	0.50								
Benzyl chloride	ND	0.50								
Bromodichloromethane	ND	0.50								
Bromoform	ND	0.50								
Bromomethane	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.50								
Chlorobenzene	ND	0.50								
Chloroethane	ND	0.50								
Chloroform	ND	0.20								
Chloromethane	ND	0.50								
cis-1,2-Dichloroethene	ND	0.50								
cis-1,3-Dichloropropene	ND	0.50								
Cumene	ND	0.50								
Cyclohexane	ND	0.50								
Dibromochloromethane	ND	0.50								
Dichlorodifluoromethane	ND	0.50								
Ethyl acetate	ND	0.50								
Ethylbenzene	ND	0.50								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik&Smith Group, Inc.
Work Order: 18091145
Project: Swan Cleaners- Mansfield; PN.: 00AS0002-48

QC BATCH REPORT

Batch ID: R157119		Instrument ID: VMS4		Method: ETO-15	
Freon 113	ND	0.50			
Freon 114	ND	0.50			
Heptane	ND	0.50			
Hexachlorobutadiene	ND	0.50			
Hexane	ND	0.50			
m,p-Xylene	ND	0.50			
Methylene chloride	ND	1.0			
MTBE	ND	0.50			
Naphthalene	ND	0.20			
o-Xylene	ND	0.50			
Propene	ND	0.50			
Styrene	ND	0.50			
Tetrachloroethene	ND	0.50			
Tetrahydrofuran	ND	0.50			
Toluene	ND	0.50			
trans-1,2-Dichloroethene	ND	0.50			
trans-1,3-Dichloropropene	ND	0.50			
Trichloroethene	ND	0.20			
Trichlorofluoromethane	ND	0.50			
Vinyl acetate	ND	0.50			
Vinyl chloride	ND	0.50			
Surr: Bromofluorobenzene	9.84	0	10	0	98.4 60-140 0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik&Smith Group, Inc.
 Work Order: 18091145
 Project: Swan Cleaners- Mansfield; PN.: 00AS0002-48

QC BATCH REPORT

Batch ID: R157119 Instrument ID: VMS4 Method: ETO-15

ics Sample ID: LCS-R157119		Units: ppbv					Analysis Date: 10/2/2018 12:21 PM			
Client ID:		Run ID: VMS4_181002A			SeqNo: 1842571		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	9.33	0.50	10	0	93.3	58.8-163	0			
1,1,2,2-Tetrachloroethane	7.97	0.50	10	0	79.7	60-140	0			
1,1,2-Trichloroethane	9.6	0.50	10	0	96	60-140	0			
1,1-Dichloroethane	7.7	0.50	10	0	77	60-140	0			
1,1-Dichloroethene	7.91	0.50	10	0	79.1	60-140	0			
1,2,4-Trichlorobenzene	9.1	0.50	10	0	91	49.3-150	0			
1,2,4-Trimethylbenzene	8.92	0.50	10	0	89.2	50.1-162	0			
1,2-Dibromoethane	9.23	0.50	10	0	92.3	60-140	0			
1,2-Dichlorobenzene	9.18	0.50	10	0	91.8	41.9-141	0			
1,2-Dichloroethane	8.69	0.50	10	0	86.9	60-140	0			
1,2-Dichloropropane	7.37	0.50	10	0	73.7	60-140	0			
1,3,5-Trimethylbenzene	8.81	0.50	10	0	88.1	60-140	0			
1,3-Butadiene	9.15	0.50	10	0	91.5	50.6-140	0			
1,3-Dichlorobenzene	9.18	0.50	10	0	91.8	60-140	0			
1,4-Dichlorobenzene	9.01	0.50	10	0	90.1	55.1-145	0			
1,4-Dioxane	9	1.0	10	0	90	60-140	0			
2-Butanone	8.2	0.50	10	0	82	60-140	0			
2-Hexanone	7.58	1.0	10	0	75.8	56.2-162	0			
2-Propanol	6.85	1.0	10	0	68.5	60-140	0			
4-Ethyltoluene	8.93	0.50	10	0	89.3	60-140	0			
4-Methyl-2-pentanone	7.04	1.0	10	0	70.4	60-140	0			
Acetone	6.89	1.0	10	0	68.9	60-140	0			
Benzene	8.13	0.50	10	0	81.3	60-140	0			
Benzyl chloride	8.68	0.50	10	0	86.8	31.9-174	0			
Bromodichloromethane	8.77	0.50	10	0	87.7	60-140	0			
Bromoform	9.31	0.50	10	0	93.1	60-140	0			
Bromomethane	7.54	0.50	10	0	75.4	60-140	0			
Carbon disulfide	8.04	0.50	10	0	80.4	60-140	0			
Carbon tetrachloride	9.72	0.50	10	0	97.2	60-140	0			
Chlorobenzene	8.32	0.50	10	0	83.2	60-140	0			
Chloroethane	7.33	0.50	10	0	73.3	60-140	0			
Chloroform	8.77	0.20	10	0	87.7	60-140	0			
Chloromethane	7.89	0.50	10	0	78.9	60-140	0			
cis-1,2-Dichloroethene	7.82	0.50	10	0	78.2	60-140	0			
cis-1,3-Dichloropropene	8.22	0.50	10	0	82.2	60-140	0			
Cumene	8.64	0.50	10	0	86.4	60-140	0			
Cyclohexane	8.58	0.50	10	0	85.8	60-140	0			
Dibromochloromethane	9.78	0.50	10	0	97.8	60-140	0			
Dichlorodifluoromethane	9.2	0.50	10	0	92	60-140	0			
Ethyl acetate	7.76	0.50	10	0	77.6	60-140	0			
Ethylbenzene	8.19	0.50	10	0	81.9	60-140	0			
Freon 113	8.93	0.50	10	0	89.3	60-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik&Smith Group, Inc.
Work Order: 18091145
Project: Swan Cleaners- Mansfield; PN.: 00AS0002-48

QC BATCH REPORT

Batch ID: R157119		Instrument ID: VMS4		Method: ETO-15			
Freon 114	9.04	0.50	10	0	90.4	60-140	0
Heptane	6.57	0.50	10	0	65.7	60-140	0
Hexachlorobutadiene	9.84	0.50	10	0	98.4	60-140	0
Hexane	7.17	0.50	10	0	71.7	60-140	0
m,p-Xylene	16.51	0.50	20	0	82.6	60-140	0
Methylene chloride	6.5	1.0	10	0	65	60-140	0
MTBE	8.53	0.50	10	0	85.3	60.8-151	0
Naphthalene	7.69	0.20	10	0	76.9	53.1-152	0
o-Xylene	8.28	0.50	10	0	82.8	60-140	0
Propene	8.39	0.50	10	0	83.9	34.4-139	0
Styrene	8.39	0.50	10	0	83.9	60-140	0
Tetrachloroethene	9.64	0.50	10	0	96.4	60-140	0
Tetrahydrofuran	6.3	0.50	10	0	63	60-140	0
Toluene	8.75	0.50	10	0	87.5	60-140	0
trans-1,2-Dichloroethene	8.52	0.50	10	0	85.2	60-140	0
trans-1,3-Dichloropropene	7.96	0.50	10	0	79.6	60-140	0
Trichloroethene	8.8	0.20	10	0	88	60-140	0
Trichlorofluoromethane	9.39	0.50	10	0	93.9	60-140	0
Vinyl acetate	7.2	0.50	10	0	72	48.4-145	0
Vinyl chloride	9.5	0.50	10	0	95	60-140	0
Surr: Bromofluorobenzene	9.89	0	10	0	98.9	60-140	0

The following samples were analyzed in this batch:

18091145-01A	18091145-02A	18091145-03A
18091145-04A	18091145-05A	18091145-06A
18091145-07A	18091145-08A	

Client: The Mannik&Smith Group, Inc.
 Work Order: 18091145
 Project: Swan Cleaners- Mansfield; PN.: 00AS0002-48

QC BATCH REPORT

Batch ID: R157157 Instrument ID: VMS4 Method: ETO-15

mbk	Sample ID: MBLK-R157157		Units: ppbv		Analysis Date: 10/3/2018 02:44 PM					
Client ID:	Run ID: VMS4_181003A		SeqNo: 1843412		Prep Date:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	ND	0.50								
1,3,5-Trimethylbenzene	ND	0.50								
4-Ethyltoluene	ND	0.50								
Carbon tetrachloride	ND	0.50								
Chloroform	ND	0.20								
Cyclohexane	ND	0.50								
Ethylbenzene	ND	0.50								
Heptane	ND	0.50								
Hexane	ND	0.50								
m,p-Xylene	ND	0.50								
o-Xylene	ND	0.50								
Propene	ND	0.50								
Tetrachloroethene	ND	0.50								
Surr: Bromofluorobenzene	9.73	0	10	0	97.3	60-140	0			

lcs	Sample ID: LCS-R157157		Units: ppbv		Analysis Date: 10/3/2018 02:00 PM					
Client ID:	Run ID: VMS4_181003A		SeqNo: 1843411		Prep Date:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	8.97	0.50	10	0	89.7	50.1-162	0			
1,3,5-Trimethylbenzene	8.86	0.50	10	0	88.6	60-140	0			
4-Ethyltoluene	8.94	0.50	10	0	89.4	60-140	0			
Carbon tetrachloride	9.49	0.50	10	0	94.9	60-140	0			
Chloroform	8.62	0.20	10	0	86.2	60-140	0			
Cyclohexane	8.79	0.50	10	0	87.9	60-140	0			
Ethylbenzene	8.24	0.50	10	0	82.4	60-140	0			
Heptane	6.62	0.50	10	0	66.2	60-140	0			
Hexane	7.24	0.50	10	0	72.4	60-140	0			
m,p-Xylene	16.54	0.50	20	0	82.7	60-140	0			
o-Xylene	8.26	0.50	10	0	82.6	60-140	0			
Propene	7.64	0.50	10	0	76.4	34.4-139	0			
Tetrachloroethene	10.12	0.50	10	0	101	60-140	0			
Surr: Bromofluorobenzene	9.67	0	10	0	96.7	60-140	0			

The following samples were analyzed in this batch:

18091145-03A	18091145-04A	18091145-05A
18091145-06A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik&Smith Group, Inc.
Project: Swan Cleaners- Mansfield; PN.: 00AS0002-48
WorkOrder: 18091145

QUALIFIERS, ACRONYMS, UNITS

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SDL	Sample Detection Limit
SW	SW-846 Method

<u>Units Reported</u>	<u>Description</u>
µg/m3	
none	
ppbv	

Sample Receipt Checklist

Client Name: MANNIK&SMITH-COLUMBUS

Date/Time Received: 28-Sep-18 10:45

Work Order: 18091145

Received by: RDN

Checklist completed by: J an Wilcox

28-Sep-18

Reviewed by: R ob Nieman

01-Oct-18

eSignature

Date

eSignature

Date

Matrices:

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<input type="text"/>		
Cooler(s)/Kit(s):	<input type="text"/>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted by:	<input type="text"/>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



Ship To: **ALS Environmental**
4388 Glendale Milford Rd.
Cincinnati, Ohio 45242
(513) 733-5336
Fax: (513) 733-5347

Air Canister - Chain of Custody Record / Analytical Service Request

Page _____ of _____

18091145

01482

Requested Turnaround Time in Business Days (Surcharges) please circle

1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day-Standard

ALS Project No.

Company Name & Address (Reporting Information)				Project Name				OH VAP: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No OH BUST: <input type="checkbox"/> Yes <input type="checkbox"/> No		Comments / Specific Instructions (ie: Water or pressure issues)	
MANNIK & SMITH GROUP				SWAN CLEANERS - MANSTER				Analysis Method		Type:	
P.O. # / Billing Information				PROJECT NUMBER				TO15 VOCs		SS = SubSlab IA = Indoor Air SG = Soil Gas O = Other AA = Ambient Air SVE = Soil Vapor Extract	
419-891-2222				OOA50002-48							
Email Address for Result Reporting				DIVISION OF EMERGENCY & REMEDIAL RESPONSE HAZARDOUS SUBSTANCE CENTER P.O. BOX 1049 COLUMBUS OH 43260-1049							
m.pesci@mnniksmithgroup.com				RAY WOODS							
Client Sample ID		Laboratory ID Number	Date Collected	Time Collected	Canister ID	Flow Controller ID	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	PID		
SC-V-VP-01	01	9/27/18	12:54		119240	109126	29	2	17.6	X	SVE
SC-V-VP-02	02	9/27/18	13:11		109934	109843	28	3	11.4	X	SVE
SC-V-VP-03	03	9/27/18	13:25		109942	109181	29	2	49.9	X	SVE
SC-V-VP-04	04	9/27/18	13:46		109939	109869	28	2	7.7	X	SVE
SC-V-VP-05	05	9/27/18	14:00		109238	109847	29	3	0.5	X	SVE
SC-V-VP-06	06	9/27/18	14:21		119236	109845	28	2	15.6	X	SVE
SC-V-VP-08	07	9/27/18	14:40		109242	109841	30	3	89.7	X	SVE
SC-V-VP-07	08	9/27/18	14:54		119942	109850	28	2	19.6	X	SVE
There will be additional charges for damaged equipment											
Relinquished by: (Signature)				Date: 9/27/18	Time: 17:50	Received by: (Signature)			Date: 9/28/18	Time: 10:45	Project Requirement (MRLs, QAPP)
Relinquished by: (Signature)				Date:	Time:	Received by: (Signature)			Date:	Time:	Cooler / Blank Temperature °C



28-Dec-2018

Matt Pesci
The Mannik & Smith Group
1800 Indian Wood Circle
Maumee, OH 43537

Tel: (419) 891-2222
Fax: 419-891-1595

Re: Swan Cleaners-Mansfield MOB Order # MS19-06; ODAS0002 Work Order: **1812465**

Dear Matt,

ALS Environmental received 3 samples on 13-Dec-2018 09:46 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 21.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Rob Nieman

Electronically approved by: Rob Nieman

Rob Nieman
Project Manager

ADDRESS 4388 Glendale Milford Rd Cincinnati, OH 45242- | PHONE (513) 733-5336 | FAX (513) 733-5347

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Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group
Project: Swan Cleaners-Mansfield MOB Order # MS19-06; ODAS0
Work Order: 1812465

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1812465-01	SC-SB-GP-11	Soil		12/11/2018 10:45	12/13/2018 09:46	<input type="checkbox"/>
1812465-02	SC-SB-GP-12	Soil		12/11/2018 12:20	12/13/2018 09:46	<input type="checkbox"/>
1812465-03	TRIP BLANK	Water		12/11/2018	12/13/2018 09:46	<input type="checkbox"/>

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group
Project: Swan Cleaners-Mansfield MOB Order # MS19-06; ODAS
Work Order: 1812465

Case Narrative

The analyses requested were analyzed according to Ohio Voluntary Action Program requirements. Affidavits are available upon request.

The analytical data provided relates directly to the samples received by ALS Laboratory Group and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MOB Order # MS19-06; ODAS0

Work Order: 1812465

Sample ID: SC-SB-GP-11

Lab ID: 1812465-01

Collection Date: 12/11/2018 10:45 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE						
Moisture	16		SM2540B	% of sample	1	Analyst: CAA 12/18/2018
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep Date: 12/18/2018	Analyst: LAK
1,1,1,2-Tetrachloroethane	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
1,1,1-Trichloroethane	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
1,1,2,2-Tetrachloroethane	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
1,1,2-Trichloroethane	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
1,1-Dichloroethane	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
1,1-Dichloroethene	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
1,1-Dichloropropene	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
1,2,3-Trichlorobenzene	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
1,2,3-Trichloropropane	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
1,2,4-Trichlorobenzene	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
1,2,4-Trimethylbenzene	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
1,2-Dibromo-3-chloropropane	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
1,2-Dibromoethane	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
1,2-Dichlorobenzene	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
1,2-Dichloroethane	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
1,2-Dichloropropane	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
1,3,5-Trimethylbenzene	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
1,3-Dichlorobenzene	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
1,3-Dichloropropane	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
1,4-Dichlorobenzene	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
2,2-Dichloropropane	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
2-Butanone	ND		43	µg/Kg-dry	1	12/18/2018 05:06 PM
2-Chlorotoluene	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
2-Hexanone	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
4-Chlorotoluene	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
4-Methyl-2-pentanone	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
Acetone	50		43	µg/Kg-dry	1	12/18/2018 05:06 PM
Benzene	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
Bromobenzene	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
Bromochloromethane	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
Bromodichloromethane	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
Bromoform	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
Bromomethane	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
Carbon disulfide	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
Carbon tetrachloride	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
Chlorobenzene	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MOB Order # MS19-06; ODAS0

Work Order: 1812465

Sample ID: SC-SB-GP-11

Lab ID: 1812465-01

Collection Date: 12/11/2018 10:45 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroethane	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
Chloroform	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
Chloromethane	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
cis-1,2-Dichloroethene	17		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
cis-1,3-Dichloropropene	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
Dibromochloromethane	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
Dibromomethane	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
Dichlorodifluoromethane	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
Ethylbenzene	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
Hexachlorobutadiene	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
Isopropylbenzene	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
m,p-Xylene	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
Methyl tert-butyl ether	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
Methylene chloride	ND		17	µg/Kg-dry	1	12/18/2018 05:06 PM
Naphthalene	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
n-Butylbenzene	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
n-Propylbenzene	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
o-Xylene	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
p-Isopropyltoluene	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
sec-Butylbenzene	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
Styrene	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
tert-Butylbenzene	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
Tetrachloroethene	21,000		740	µg/Kg-dry	125	12/19/2018 12:13 PM
Toluene	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
trans-1,2-Dichloroethene	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
trans-1,3-Dichloropropene	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
Trichloroethene	28		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
Trichlorofluoromethane	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
Vinyl chloride	ND		4.3	µg/Kg-dry	1	12/18/2018 05:06 PM
Xylenes, Total	ND		8.7	µg/Kg-dry	1	12/18/2018 05:06 PM
Surr: 4-Bromofluorobenzene	94.4		62.7-159	%REC	1	12/18/2018 05:06 PM
Surr: Dibromofluoromethane	105		67.3-136	%REC	1	12/18/2018 05:06 PM
Surr: Toluene-d8	97.1		83-124	%REC	1	12/18/2018 05:06 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MOB Order # MS19-06; ODAS0

Work Order: 1812465

Sample ID: SC-SB-GP-12

Lab ID: 1812465-02

Collection Date: 12/11/2018 12:20 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE						
Moisture	14		SM2540B	% of sample	1	Analyst: CAA 12/18/2018
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep Date: 12/18/2018	Analyst: LAK
1,1,1,2-Tetrachloroethane	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
1,1,1-Trichloroethane	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
1,1,2,2-Tetrachloroethane	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
1,1,2-Trichloroethane	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
1,1-Dichloroethane	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
1,1-Dichloroethene	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
1,1-Dichloropropene	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
1,2,3-Trichlorobenzene	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
1,2,3-Trichloropropane	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
1,2,4-Trichlorobenzene	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
1,2,4-Trimethylbenzene	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
1,2-Dibromo-3-chloropropane	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
1,2-Dibromoethane	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
1,2-Dichlorobenzene	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
1,2-Dichloroethane	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
1,2-Dichloropropane	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
1,3,5-Trimethylbenzene	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
1,3-Dichlorobenzene	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
1,3-Dichloropropane	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
1,4-Dichlorobenzene	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
2,2-Dichloropropane	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
2-Butanone	ND		45	µg/Kg-dry	1	12/18/2018 05:30 PM
2-Chlorotoluene	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
2-Hexanone	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
4-Chlorotoluene	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
4-Methyl-2-pentanone	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
Acetone	ND		45	µg/Kg-dry	1	12/18/2018 05:30 PM
Benzene	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
Bromobenzene	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
Bromochloromethane	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
Bromodichloromethane	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
Bromoform	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
Bromomethane	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
Carbon disulfide	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
Carbon tetrachloride	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
Chlorobenzene	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MOB Order # MS19-06; ODAS0

Work Order: 1812465

Sample ID: SC-SB-GP-12

Lab ID: 1812465-02

Collection Date: 12/11/2018 12:20 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroethane	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
Chloroform	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
Chloromethane	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
cis-1,2-Dichloroethene	130		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
cis-1,3-Dichloropropene	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
Dibromochloromethane	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
Dibromomethane	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
Dichlorodifluoromethane	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
Ethylbenzene	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
Hexachlorobutadiene	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
Isopropylbenzene	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
m,p-Xylene	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
Methyl tert-butyl ether	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
Methylene chloride	ND		18	µg/Kg-dry	1	12/18/2018 05:30 PM
Naphthalene	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
n-Butylbenzene	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
n-Propylbenzene	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
o-Xylene	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
p-Isopropyltoluene	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
sec-Butylbenzene	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
Styrene	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
tert-Butylbenzene	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
Tetrachloroethene	430		29	µg/Kg-dry	5	12/19/2018 11:50 AM
Toluene	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
trans-1,2-Dichloroethene	5.3		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
trans-1,3-Dichloropropene	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
Trichloroethene	37		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
Trichlorofluoromethane	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
Vinyl chloride	ND		4.5	µg/Kg-dry	1	12/18/2018 05:30 PM
Xylenes, Total	ND		8.9	µg/Kg-dry	1	12/18/2018 05:30 PM
Surr: 4-Bromofluorobenzene	100		62.7-159	%REC	1	12/18/2018 05:30 PM
Surr: Dibromofluoromethane	104		67.3-136	%REC	1	12/18/2018 05:30 PM
Surr: Toluene-d8	97.9		83-124	%REC	1	12/18/2018 05:30 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MOB Order # MS19-06; ODAS0

Work Order: 1812465

Sample ID: TRIP BLANK

Lab ID: 1812465-03

Collection Date: 12/11/2018

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260B		Analyst: LAK	
1,1,1,2-Tetrachloroethane	ND		5.0	µg/L	1	12/14/2018 11:28 AM
1,1,1-Trichloroethane	ND		5.0	µg/L	1	12/14/2018 11:28 AM
1,1,2,2-Tetrachloroethane	ND		5.0	µg/L	1	12/14/2018 11:28 AM
1,1,2-Trichloroethane	ND		5.0	µg/L	1	12/14/2018 11:28 AM
1,1-Dichloroethane	ND		5.0	µg/L	1	12/14/2018 11:28 AM
1,1-Dichloroethene	ND		5.0	µg/L	1	12/14/2018 11:28 AM
1,1-Dichloropropene	ND		5.0	µg/L	1	12/14/2018 11:28 AM
1,2,3-Trichlorobenzene	ND		5.0	µg/L	1	12/14/2018 11:28 AM
1,2,3-Trichloropropane	ND		5.0	µg/L	1	12/14/2018 11:28 AM
1,2,4-Trichlorobenzene	ND		5.0	µg/L	1	12/14/2018 11:28 AM
1,2,4-Trimethylbenzene	ND		5.0	µg/L	1	12/14/2018 11:28 AM
1,2-Dibromo-3-chloropropane	ND		5.0	µg/L	1	12/14/2018 11:28 AM
1,2-Dibromoethane	ND		5.0	µg/L	1	12/14/2018 11:28 AM
1,2-Dichlorobenzene	ND		5.0	µg/L	1	12/14/2018 11:28 AM
1,2-Dichloroethane	ND		5.0	µg/L	1	12/14/2018 11:28 AM
1,2-Dichloropropane	ND		5.0	µg/L	1	12/14/2018 11:28 AM
1,3,5-Trimethylbenzene	ND		5.0	µg/L	1	12/14/2018 11:28 AM
1,3-Dichlorobenzene	ND		5.0	µg/L	1	12/14/2018 11:28 AM
1,3-Dichloropropane	ND		5.0	µg/L	1	12/14/2018 11:28 AM
1,4-Dichlorobenzene	ND		5.0	µg/L	1	12/14/2018 11:28 AM
2,2-Dichloropropane	ND		5.0	µg/L	1	12/14/2018 11:28 AM
2-Butanone	ND		50	µg/L	1	12/14/2018 11:28 AM
2-Chlorotoluene	ND		5.0	µg/L	1	12/14/2018 11:28 AM
2-Hexanone	ND		5.0	µg/L	1	12/14/2018 11:28 AM
4-Chlorotoluene	ND		5.0	µg/L	1	12/14/2018 11:28 AM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	12/14/2018 11:28 AM
Acetone	ND		50	µg/L	1	12/14/2018 11:28 AM
Benzene	ND		5.0	µg/L	1	12/14/2018 11:28 AM
Bromobenzene	ND		5.0	µg/L	1	12/14/2018 11:28 AM
Bromochloromethane	ND		5.0	µg/L	1	12/14/2018 11:28 AM
Bromodichloromethane	ND		5.0	µg/L	1	12/14/2018 11:28 AM
Bromoform	ND		5.0	µg/L	1	12/14/2018 11:28 AM
Bromomethane	ND		5.0	µg/L	1	12/14/2018 11:28 AM
Carbon disulfide	ND		5.0	µg/L	1	12/14/2018 11:28 AM
Carbon tetrachloride	ND		5.0	µg/L	1	12/14/2018 11:28 AM
Chlorobenzene	ND		5.0	µg/L	1	12/14/2018 11:28 AM
Chloroethane	ND		5.0	µg/L	1	12/14/2018 11:28 AM
Chloroform	ND		5.0	µg/L	1	12/14/2018 11:28 AM
Chloromethane	ND		5.0	µg/L	1	12/14/2018 11:28 AM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MOB Order # MS19-06; ODAS0

Work Order: 1812465

Sample ID: TRIP BLANK

Lab ID: 1812465-03

Collection Date: 12/11/2018

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	ND		5.0	µg/L	1	12/14/2018 11:28 AM
cis-1,3-Dichloropropene	ND		5.0	µg/L	1	12/14/2018 11:28 AM
Dibromochloromethane	ND		5.0	µg/L	1	12/14/2018 11:28 AM
Dibromomethane	ND		5.0	µg/L	1	12/14/2018 11:28 AM
Dichlorodifluoromethane	ND		5.0	µg/L	1	12/14/2018 11:28 AM
Ethylbenzene	ND		5.0	µg/L	1	12/14/2018 11:28 AM
Hexachlorobutadiene	ND		5.0	µg/L	1	12/14/2018 11:28 AM
Isopropylbenzene	ND		5.0	µg/L	1	12/14/2018 11:28 AM
m,p-Xylene	ND		5.0	µg/L	1	12/14/2018 11:28 AM
Methyl tert-butyl ether	ND		5.0	µg/L	1	12/14/2018 11:28 AM
Methylene chloride	ND		5.0	µg/L	1	12/14/2018 11:28 AM
Naphthalene	ND		5.0	µg/L	1	12/14/2018 11:28 AM
n-Butylbenzene	ND		5.0	µg/L	1	12/14/2018 11:28 AM
n-Propylbenzene	ND		5.0	µg/L	1	12/14/2018 11:28 AM
o-Xylene	ND		5.0	µg/L	1	12/14/2018 11:28 AM
p-Isopropyltoluene	ND		5.0	µg/L	1	12/14/2018 11:28 AM
sec-Butylbenzene	ND		5.0	µg/L	1	12/14/2018 11:28 AM
Styrene	ND		5.0	µg/L	1	12/14/2018 11:28 AM
tert-Butylbenzene	ND		5.0	µg/L	1	12/14/2018 11:28 AM
Tetrachloroethene	ND		5.0	µg/L	1	12/14/2018 11:28 AM
Toluene	ND		5.0	µg/L	1	12/14/2018 11:28 AM
trans-1,2-Dichloroethene	ND		5.0	µg/L	1	12/14/2018 11:28 AM
trans-1,3-Dichloropropene	ND		5.0	µg/L	1	12/14/2018 11:28 AM
Trichloroethene	ND		5.0	µg/L	1	12/14/2018 11:28 AM
Trichlorofluoromethane	ND		5.0	µg/L	1	12/14/2018 11:28 AM
Vinyl chloride	ND		2.0	µg/L	1	12/14/2018 11:28 AM
Xylenes, Total	ND		10	µg/L	1	12/14/2018 11:28 AM
Surr: 4-Bromofluorobenzene	115		61-131	%REC	1	12/14/2018 11:28 AM
Surr: Dibromofluoromethane	111		87-126	%REC	1	12/14/2018 11:28 AM
Surr: Toluene-d8	93.5		84-111	%REC	1	12/14/2018 11:28 AM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

QC BATCH REPORT

Work Order: 1812465

Project: Swan Cleaners-Mansfield MOB Order # MS19-06;

Batch ID: R159847

Instrument ID: VMS1

Method: SW8260B

MBLK		Sample ID: MBLK-R159847			Units: µg/L		Analysis Date: 12/14/2018 10:58 AM			
Client ID:		Run ID: VMS1_181214A			SeqNo: 1888310		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0								
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,1-Dichloropropene	ND	5.0								
1,2,3-Trichlorobenzene	ND	5.0								
1,2,3-Trichloropropane	ND	5.0								
1,2,4-Trichlorobenzene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromo-3-chloropropane	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichlorobenzene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
1,3-Dichlorobenzene	ND	5.0								
1,3-Dichloropropane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2,2-Dichloropropane	ND	5.0								
2-Butanone	ND	50								
2-Chlorotoluene	ND	5.0								
2-Hexanone	ND	5.0								
4-Chlorotoluene	ND	5.0								
4-Methyl-2-pentanone	ND	5.0								
Acetone	ND	50								
Benzene	ND	5.0								
Bromobenzene	ND	5.0								
Bromochloromethane	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	5.0								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik & Smith Group
Work Order: 1812465
Project: Swan Cleaners-Mansfield MOB Order # MS19-06;

QC BATCH REPORT

Batch ID: R159847		Instrument ID: VMS1		Method: SW8260B				
Dibromochloromethane	ND	5.0						
Dibromomethane	ND	5.0						
Dichlorodifluoromethane	ND	5.0						
Ethylbenzene	ND	5.0						
Hexachlorobutadiene	ND	5.0						
Isopropylbenzene	ND	5.0						
m,p-Xylene	ND	5.0						
Methyl tert-butyl ether	ND	5.0						
Methylene chloride	ND	5.0						
Naphthalene	ND	5.0						
n-Butylbenzene	ND	5.0						
n-Propylbenzene	ND	5.0						
o-Xylene	ND	5.0						
p-Isopropyltoluene	ND	5.0						
sec-Butylbenzene	ND	5.0						
Styrene	ND	5.0						
tert-Butylbenzene	ND	5.0						
Tetrachloroethene	ND	5.0						
Toluene	ND	5.0						
trans-1,2-Dichloroethene	ND	5.0						
trans-1,3-Dichloropropene	ND	5.0						
Trichloroethene	ND	5.0						
Trichlorofluoromethane	ND	5.0						
Vinyl chloride	ND	2.0						
Xylenes, Total	ND	10						
<i>Surr: 4-Bromofluorobenzene</i>	62.33	0	50	0	125	61-131	0	
<i>Surr: Dibromofluoromethane</i>	54.42	0	50	0	109	87-126	0	
<i>Surr: Toluene-d8</i>	44.87	0	50	0	89.7	84-111	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik & Smith Group
Work Order: 1812465
Project: Swan Cleaners-Mansfield MOB Order # MS19-06;

QC BATCH REPORT

Batch ID: **R159847** Instrument ID: **VMS1** Method: **SW8260B**

LCS		Sample ID: LCS-R159847		Units: µg/L		Analysis Date: 12/14/2018 10:10 AM				
Client ID:		Run ID: VMS1_181214A		SeqNo: 1888309		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	44.19	5.0	50	0	88.4	48.4-140	0			
1,1-Dichloroethene	53.54	5.0	50	0	107	45.5-150	0			
1,2-Dichloroethane	43.4	5.0	50	0	86.8	46.5-141	0			
1,3-Dichlorobenzene	48.15	5.0	50	0	96.3	42.5-133	0			
1,4-Dichlorobenzene	50.71	5.0	50	0	101	38.9-136	0			
Benzene	42.64	5.0	50	0	85.3	50.7-134	0			
Carbon tetrachloride	44.31	5.0	50	0	88.6	45.5-143	0			
Chlorobenzene	43.61	5.0	50	0	87.2	45-133	0			
Chloroform	47.78	5.0	50	0	95.6	52.4-136	0			
cis-1,2-Dichloroethene	48.44	5.0	50	0	96.9	49.7-138	0			
Ethylbenzene	40.91	5.0	50	0	81.8	37.8-145	0			
m,p-Xylene	81.16	5.0	100	0	81.2	25.1-163	0			
Methyl tert-butyl ether	74.31	5.0	50	0	149	26.7-174	0			
Styrene	42.69	5.0	50	0	85.4	26.3-172	0			
Tetrachloroethene	42.5	5.0	50	0	85	37.3-139	0			
Toluene	41.64	5.0	50	0	83.3	44-135	0			
Trichloroethene	43.95	5.0	50	0	87.9	45.9-140	0			
Xylenes, Total	122.9	10	150	0	81.9	47.3-132	0			
Surr: 4-Bromofluorobenzene	56.57	0	50	0	113	61-131	0			
Surr: Dibromofluoromethane	55.27	0	50	0	111	87-126	0			
Surr: Toluene-d8	44.53	0	50	0	89.1	84-111	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik & Smith Group
Work Order: 1812465
Project: Swan Cleaners-Mansfield MOB Order # MS19-06;

QC BATCH REPORT

Batch ID: R159847 Instrument ID: VMS1 Method: SW8260B

MS		Sample ID: 1812179-18A MS				Units: µg/L		Analysis Date: 12/14/2018 03:55 PM		
Client ID:		Run ID: VMS1_181214A				SeqNo: 1888760		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	45.43	5.0	50	0	90.9	40.4-134	0			
1,1-Dichloroethene	53.59	5.0	50	0	107	45.3-151	0			
1,2-Dichloroethane	43.24	5.0	50	0	86.5	37-139	0			
1,3-Dichlorobenzene	55.88	5.0	50	0	112	42.9-121	0			
1,4-Dichlorobenzene	57.52	5.0	50	0	115	53.4-129	0			
Benzene	44.73	5.0	50	0	89.5	37.4-144	0			
Carbon tetrachloride	43.27	5.0	50	0	86.5	33.8-150	0			
Chlorobenzene	46.46	5.0	50	0	92.9	52.4-132	0			
Chloroform	49	5.0	50	0	98	45.5-135	0			
cis-1,2-Dichloroethene	48.55	5.0	50	0	97.1	35.2-150	0			
Ethylbenzene	43.81	5.0	50	0	87.6	46.5-146	0			
m,p-Xylene	87.05	5.0	100	0	87	38.2-167	0			
Styrene	45.6	5.0	50	0	91.2	20.9-184	0			
Tetrachloroethene	44.04	5.0	50	0	88.1	55.2-134	0			
Toluene	42.8	5.0	50	0	85.6	32.7-140	0			
Trichloroethene	44.84	5.0	50	0	89.7	29.1-153	0			
Xylenes, Total	131.8	10	150	0	87.9	43.6-148	0			
Surr: 4-Bromofluorobenzene	58.35	0	50	0	117	61-131	0			
Surr: Dibromofluoromethane	52.99	0	50	0	106	87-126	0			
Surr: Toluene-d8	43.72	0	50	0	87.4	84-111	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik & Smith Group
 Work Order: 1812465
 Project: Swan Cleaners-Mansfield MOB Order # MS19-06;

QC BATCH REPORT

Batch ID: R159847 Instrument ID: VMS1 Method: SW8260B

MSD		Sample ID: 1812179-18A MSD				Units: µg/L		Analysis Date: 12/14/2018 03:30 PM		
Client ID:		Run ID: VMS1_181214A				SeqNo: 1888408		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	37.01	5.0	50	0	74	40.4-134	47.93	0	20	
1,1-Dichloroethene	44.21	5.0	50	0	88.4	45.3-151	55.27	0	20	
1,2-Dichloroethane	30.93	5.0	50	0	61.9	37-139	44.31	0	20	
1,3-Dichlorobenzene	32.63	5.0	50	0	65.3	42.9-121	67.69	0	20	
1,4-Dichlorobenzene	34.16	5.0	50	0	68.3	53.4-129	69.77	0	20	
Benzene	35.77	5.0	50	0	71.5	37.4-144	46.62	0	20	
Carbon tetrachloride	35.37	5.0	50	0	70.7	33.8-150	48.12	0	20	
Chlorobenzene	32.83	5.0	50	0	65.7	52.4-132	52.1	0	20	
Chloroform	39.05	5.0	50	0	78.1	45.5-135	48.16	0	20	
cis-1,2-Dichloroethene	39.2	5.0	50	0	78.4	35.2-150	48.79	0	21	
Ethylbenzene	31.13	5.0	50	0	62.3	46.5-146	51.01	0	20	
m,p-Xylene	61.46	5.0	100	0	61.5	38.2-167	100.9	0	20	
Styrene	30.57	5.0	50	0	61.1	20.9-184	51.55	0	20	
Tetrachloroethene	30.98	5.0	50	0	62	55.2-134	52.31	0	20	
Toluene	32.58	5.0	50	0	65.2	32.7-140	45.68	0	20	
Trichloroethene	34.67	5.0	50	0	69.3	29.1-153	47.57	0	20	
Xylenes, Total	92.46	10	150	0	61.6	43.6-148	152.4	0	20	
Surr: 4-Bromofluorobenzene	58.32	0	50	0	117	61-131	58.92	0		
Surr: Dibromofluoromethane	52.77	0	50	0	106	87-126	51.49	0		
Surr: Toluene-d8	45.35	0	50	0	90.7	84-111	43.02	0		

The following samples were analyzed in this batch:

1812465-03A

Client: The Mannik & Smith Group
 Work Order: 1812465
 Project: Swan Cleaners-Mansfield MOB Order # MS19-06;

QC BATCH REPORT

Batch ID: R159960 Instrument ID: VMS2 Method: SW8260B

MBLK		Sample ID: mblk-R159960			Units: µg/Kg		Analysis Date: 12/18/2018 11:04 AM			
Client ID:		Run ID: VMS2_181218A			SeqNo: 1890609		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0								
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,1-Dichloropropene	ND	5.0								
1,2,3-Trichlorobenzene	ND	5.0								
1,2,3-Trichloropropane	ND	5.0								
1,2,4-Trichlorobenzene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromo-3-chloropropane	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichlorobenzene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
1,3-Dichlorobenzene	ND	5.0								
1,3-Dichloropropane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2,2-Dichloropropane	ND	5.0								
2-Butanone	ND	50								
2-Chlorotoluene	ND	5.0								
2-Hexanone	ND	5.0								
4-Chlorotoluene	ND	5.0								
4-Methyl-2-pentanone	ND	5.0								
Acetone	ND	50								
Benzene	ND	5.0								
Bromobenzene	ND	5.0								
Bromochloromethane	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	5.0								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik & Smith Group
Work Order: 1812465
Project: Swan Cleaners-Mansfield MOB Order # MS19-06;

QC BATCH REPORT

Batch ID: R159960		Instrument ID: VMS2		Method: SW8260B				
Dibromomethane	ND	5.0						
Dichlorodifluoromethane	ND	5.0						
Ethylbenzene	ND	5.0						
Hexachlorobutadiene	ND	5.0						
Isopropylbenzene	ND	5.0						
m,p-Xylene	ND	5.0						
Methyl tert-butyl ether	ND	5.0						
Methylene chloride	ND	20						
Naphthalene	ND	5.0						
n-Butylbenzene	ND	5.0						
n-Propylbenzene	ND	5.0						
o-Xylene	ND	5.0						
p-Isopropyltoluene	ND	5.0						
sec-Butylbenzene	ND	5.0						
Styrene	ND	5.0						
tert-Butylbenzene	ND	5.0						
Toluene	ND	5.0						
trans-1,2-Dichloroethene	ND	5.0						
trans-1,3-Dichloropropene	ND	5.0						
Trichloroethene	ND	5.0						
Trichlorofluoromethane	ND	5.0						
Vinyl chloride	ND	5.0						
Xylenes, Total	ND	10						
<i>Surr: 4-Bromofluorobenzene</i>	47.44	0	50	0	94.9	62.7-159	0	
<i>Surr: Dibromofluoromethane</i>	49.79	0	50	0	99.6	67.3-136	0	
<i>Surr: Toluene-d8</i>	48.58	0	50	0	97.2	83-124	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik & Smith Group
 Work Order: 1812465
 Project: Swan Cleaners-Mansfield MOB Order # MS19-06;

QC BATCH REPORT

Batch ID: R159960 Instrument ID: VMS2 Method: SW8260B

LCS Sample ID: LCS-R159960		Units: µg/Kg				Analysis Date: 12/18/2018 09:31 AM				
Client ID:		Run ID: VMS2_181218A		SeqNo: 1890606		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	46.26	5.0	50	0	92.5	53.6-149	0			
1,1-Dichloroethene	43.25	5.0	50	0	86.5	38.8-176	0			
1,2-Dichloroethane	41.73	5.0	50	0	83.5	54.4-145	0			
1,3-Dichlorobenzene	41.17	5.0	50	0	82.3	54.2-137	0			
1,4-Dichlorobenzene	41.11	5.0	50	0	82.2	52.8-135	0			
Benzene	42.75	5.0	50	0	85.5	56-148	0			
Carbon tetrachloride	46.11	5.0	50	0	92.2	51.9-151	0			
Chlorobenzene	41.39	5.0	50	0	82.8	55.4-137	0			
Chloroform	44.49	5.0	50	0	89	51.1-147	0			
cis-1,2-Dichloroethene	44.19	5.0	50	0	88.4	47.6-149	0			
Ethylbenzene	42.27	5.0	50	0	84.5	55.8-142	0			
m,p-Xylene	85.87	5.0	100	0	85.9	57.6-141	0			
Styrene	41.76	5.0	50	0	83.5	59.6-143	0			
Toluene	41.77	5.0	50	0	83.5	56-143	0			
Trichloroethene	43.69	5.0	50	0	87.4	56.5-143	0			
Surr: 4-Bromofluorobenzene	47.32	0	50	0	94.6	62.7-159	0			
Surr: Dibromofluoromethane	50.78	0	50	0	102	67.3-136	0			
Surr: Toluene-d8	48.17	0	50	0	96.3	83-124	0			

MS Sample ID: 1812504-01A MS		Units: µg/Kg				Analysis Date: 12/18/2018 09:54 AM				
Client ID:		Run ID: VMS2_181218A		SeqNo: 1890607		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	48.09	5.0	50	0	96.2	66.9-140	0			
1,1-Dichloroethene	44.13	5.0	50	0	88.3	41.4-161	0			
1,2-Dichloroethane	44.92	5.0	50	0	89.8	58.9-137	0			
1,3-Dichlorobenzene	43.08	5.0	50	0	86.2	56.3-126	0			
1,4-Dichlorobenzene	42.15	5.0	50	0	84.3	58.3-122	0			
Benzene	44.43	5.0	50	0	88.9	35.8-162	0			
Carbon tetrachloride	48.04	5.0	50	0	96.1	53.2-137	0			
Chlorobenzene	43.3	5.0	50	0	86.6	65.6-137	0			
Chloroform	44.88	5.0	50	0	89.8	58-130	0			
cis-1,2-Dichloroethene	45.85	5.0	50	0	91.7	52.9-138	0			
Ethylbenzene	44.82	5.0	50	0	89.6	57.5-134	0			
m,p-Xylene	89.65	5.0	100	0	89.6	56.4-135	0			
Styrene	42.51	5.0	50	0	85	60.9-135	0			
Toluene	45.53	5.0	50	0	91.1	67.7-135	0			
Trichloroethene	44.07	5.0	50	0	88.1	56.5-136	0			
Surr: 4-Bromofluorobenzene	50.41	0	50	0	101	62.7-159	0			
Surr: Dibromofluoromethane	51.86	0	50	0	104	67.3-136	0			
Surr: Toluene-d8	51.47	0	50	0	103	83-124	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik & Smith Group
 Work Order: 1812465
 Project: Swan Cleaners-Mansfield MOB Order # MS19-06;

QC BATCH REPORT

Batch ID: R159960 Instrument ID: VMS2 Method: SW8260B

MSD		Sample ID: 1812504-01A MSD				Units: µg/Kg		Analysis Date: 12/18/2018 10:17 AM		
Client ID:		Run ID: VMS2_181218A				SeqNo: 1890608		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	47.24	5.0	50	0	94.5	66.9-140	48.09	1.78	31.2	
1,1-Dichloroethene	43.89	5.0	50	0	87.8	41.4-161	44.13	0.545	38.1	
1,2-Dichloroethane	43.49	5.0	50	0	87	58.9-137	44.92	3.23	26.2	
1,3-Dichlorobenzene	43.09	5.0	50	0	86.2	56.3-126	43.08	0.0232	21	
1,4-Dichlorobenzene	44.12	5.0	50	0	88.2	58.3-122	42.15	4.57	28.7	
Benzene	42.68	5.0	50	0	85.4	35.8-162	44.43	4.02	23.6	
Carbon tetrachloride	45.85	5.0	50	0	91.7	53.2-137	48.04	4.67	32.3	
Chlorobenzene	43.37	5.0	50	0	86.7	65.6-137	43.3	0.162	20	
Chloroform	45.03	5.0	50	0	90.1	58-130	44.88	0.334	28.2	
cis-1,2-Dichloroethene	45.2	5.0	50	0	90.4	52.9-138	45.85	1.43	23.7	
Ethylbenzene	43.37	5.0	50	0	86.7	57.5-134	44.82	3.29	24.9	
m,p-Xylene	88.09	5.0	100	0	88.1	56.4-135	89.65	1.76	25.1	
Styrene	44.05	5.0	50	0	88.1	60.9-135	42.51	3.56	22.8	
Toluene	43.87	5.0	50	0	87.7	67.7-135	45.53	3.71	20	
Trichloroethene	44.14	5.0	50	0	88.3	56.5-136	44.07	0.159	20	
Surr: 4-Bromofluorobenzene	49.4	0	50	0	98.8	62.7-159	50.41	2.02		
Surr: Dibromofluoromethane	49.06	0	50	0	98.1	67.3-136	51.86	5.55		
Surr: Toluene-d8	48.95	0	50	0	97.9	83-124	51.47	5.02		

The following samples were analyzed in this batch:

1812465-01A 1812465-02A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik & Smith Group
 Work Order: 1812465
 Project: Swan Cleaners-Mansfield MOB Order # MS19-06;

QC BATCH REPORT

Batch ID: R160012 Instrument ID: VMS2 Method: SW8260B

MBLK	Sample ID: mblk-R160012				Units: µg/Kg		Analysis Date: 12/19/2018 11:03 AM			
Client ID:	Run ID: VMS2_181219A				SeqNo: 1891434		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Tetrachloroethene	ND	5.0								
Surr: 4-Bromofluorobenzene	49.65	0	50	0	99.3	62.7-159	0			
Surr: Dibromofluoromethane	52.11	0	50	0	104	67.3-136	0			
Surr: Toluene-d8	47.46	0	50	0	94.9	83-124	0			

LCS Sample ID: LCS-R160012				Units: µg/Kg			Analysis Date: 12/19/2018 09:30 AM			
Client ID:		Run ID: VMS2_181219A			SeqNo: 1891431		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Tetrachloroethene	38.33	5.0	50	0	76.7	56.2-160	0			
Surr: 4-Bromofluorobenzene	51.6	0	50	0	103	62.7-159	0			
Surr: Dibromofluoromethane	49.83	0	50	0	99.7	67.3-136	0			
Surr: Toluene-d8	49.86	0	50	0	99.7	83-124	0			

MS				Sample ID: 1812622-01A MS				Units: µg/Kg				Analysis Date: 12/19/2018 09:53 AM											
Client ID:				Run ID: VMS2_181219A				SeqNo: 1891432				Prep Date: DF: 1											
Analyte				Result		PQL		SPK Val		SPK Ref Value		%REC		Control Limit		RPD Ref Value		%RPD		RPD Limit		Qual	
Tetrachloroethene				42.04		5.0		50		0		84.1		52.1-160		0							
Surr: 4-Bromofluorobenzene				51.18		0		50		0		102		62.7-159		0							
Surr: Dibromofluoromethane				52.76		0		50		0		106		67.3-136		0							
Surr: Toluene-d8				49.52		0		50		0		99		83-124		0							

MSD				Sample ID: 1812622-01A MSd				Units: µg/Kg				Analysis Date: 12/19/2018 10:16 AM			
Client ID:				Run ID: VMS2_181219A				SeqNo: 1891433				Prep Date: DF: 1			
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Tetrachloroethene		38.66	5.0	50	0	77.3	52.1-160	42.04	8.38	24.7					
Surr: 4-Bromofluorobenzene		50.94	0	50	0	102	62.7-159	51.18	0.47						
Surr: Dibromofluoromethane		49.4	0	50	0	98.8	67.3-136	52.76	6.58						
Surr: Toluene-d8		47.58	0	50	0	95.2	83-124	49.52	4						

The following samples were analyzed in this batch:

1812465-01A 1812465-02A

Client: The Mannik & Smith Group
Project: Swan Cleaners-Mansfield MOB Order # MS19-06; ODAS0
WorkOrder: 1812465

QUALIFIERS, ACRONYMS, UNITS

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SDL	Sample Detection Limit
SW	SW-846 Method

<u>Units Reported</u>	<u>Description</u>
% of sample	
µg/Kg-dry	
µg/L	

Sample Receipt Checklist

Client Name: MANNIK-MAUMEE

Date/Time Received: 13-Dec-18 09:46

Work Order: 1812465

Received by: SNH

Checklist completed by: Stephanie Harrington

13-Dec-18

Reviewed by: Rob Nieman

17-Dec-18

eSignature

Date

eSignature

Date

Matrices:

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>2.6</u>		
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



28-Dec-2018

Matt Pesci
The Mannik & Smith Group
1800 Indian Wood Circle
Maumee, OH 43537

Tel: (419) 891-2222
Fax: 419-891-1595

Re: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: **1812729**

Dear Matt,

ALS Environmental received 12 samples on 20-Dec-2018 09:40 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 62.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Rob Nieman

Electronically approved by: Rob Nieman

Rob Nieman
Project Manager

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group
Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50
Work Order: 1812729

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1812729-01	SC-V-VP-01	Air		12/19/2018	12/20/2018 09:40	<input type="checkbox"/>
1812729-02	SC-V-VP-02	Air		12/19/2018	12/20/2018 09:40	<input type="checkbox"/>
1812729-03	SC-V-VP-03	Air		12/19/2018	12/20/2018 09:40	<input type="checkbox"/>
1812729-04	SC-V-VP-04	Air		12/19/2018	12/20/2018 09:40	<input type="checkbox"/>
1812729-05	SC-V-VP-05	Air		12/19/2018	12/20/2018 09:40	<input type="checkbox"/>
1812729-06	SC-V-VP-06	Air		12/19/2018	12/20/2018 09:40	<input type="checkbox"/>
1812729-07	SC-V-VP-07	Air		12/19/2018	12/20/2018 09:40	<input type="checkbox"/>
1812729-08	SC-V-VP-08	Air		12/19/2018	12/20/2018 09:40	<input type="checkbox"/>
1812729-09	SC-V-VP-09	Air		12/19/2018	12/20/2018 09:40	<input type="checkbox"/>
1812729-10	SC-V-VP-10	Air		12/19/2018	12/20/2018 09:40	<input type="checkbox"/>
1812729-11	SC-V-VP-11	Air		12/19/2018	12/20/2018 09:40	<input type="checkbox"/>
1812729-12	SC-V-VP-12	Air		12/19/2018	12/20/2018 09:40	<input type="checkbox"/>

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group
Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50
Work Order: 1812729

Case Narrative

The analyses requested were analyzed according to Ohio Voluntary Action Program requirements. Affidavits are available upon request.

The analytical data provided relates directly to the samples received by ALS Laboratory Group and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: 1812729

Sample ID: SC-V-VP-01

Lab ID: 1812729-01

Collection Date: 12/19/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			ETO-15		Analyst: MRJ	
1,1,1-Trichloroethane	6.8		5.0	ppbv	10	12/22/2018 07:12 PM
1,1,2,2-Tetrachloroethane	ND		5.0	ppbv	10	12/22/2018 07:12 PM
1,1,2-Trichloroethane	ND		5.0	ppbv	10	12/22/2018 07:12 PM
1,1-Dichloroethane	10		5.0	ppbv	10	12/22/2018 07:12 PM
1,1-Dichloroethene	ND		5.0	ppbv	10	12/22/2018 07:12 PM
1,2,4-Trichlorobenzene	ND		5.0	ppbv	10	12/22/2018 07:12 PM
1,2,4-Trimethylbenzene	ND		5.0	ppbv	10	12/22/2018 07:12 PM
1,2-Dibromoethane	ND		5.0	ppbv	10	12/22/2018 07:12 PM
1,2-Dichlorobenzene	ND		5.0	ppbv	10	12/22/2018 07:12 PM
1,2-Dichloroethane	ND		5.0	ppbv	10	12/22/2018 07:12 PM
1,2-Dichloropropane	ND		5.0	ppbv	10	12/22/2018 07:12 PM
1,3,5-Trimethylbenzene	ND		5.0	ppbv	10	12/22/2018 07:12 PM
1,3-Butadiene	ND		5.0	ppbv	10	12/22/2018 07:12 PM
1,3-Dichlorobenzene	ND		5.0	ppbv	10	12/22/2018 07:12 PM
1,4-Dichlorobenzene	ND		5.0	ppbv	10	12/22/2018 07:12 PM
1,4-Dioxane	ND		10	ppbv	10	12/22/2018 07:12 PM
2-Butanone	ND		5.0	ppbv	10	12/22/2018 07:12 PM
2-Hexanone	ND		10	ppbv	10	12/22/2018 07:12 PM
2-Propanol	ND		10	ppbv	10	12/22/2018 07:12 PM
4-Ethyltoluene	ND		5.0	ppbv	10	12/22/2018 07:12 PM
4-Methyl-2-pentanone	ND		10	ppbv	10	12/22/2018 07:12 PM
Acetone	ND		10	ppbv	10	12/22/2018 07:12 PM
Benzene	ND		5.0	ppbv	10	12/22/2018 07:12 PM
Benzyl chloride	ND		5.0	ppbv	10	12/22/2018 07:12 PM
Bromodichloromethane	ND		5.0	ppbv	10	12/22/2018 07:12 PM
Bromoform	ND		5.0	ppbv	10	12/22/2018 07:12 PM
Bromomethane	ND		5.0	ppbv	10	12/22/2018 07:12 PM
Carbon disulfide	9.8		5.0	ppbv	10	12/22/2018 07:12 PM
Carbon tetrachloride	ND		5.0	ppbv	10	12/22/2018 07:12 PM
Chlorobenzene	ND		5.0	ppbv	10	12/22/2018 07:12 PM
Chloroethane	ND		5.0	ppbv	10	12/22/2018 07:12 PM
Chloroform	ND		2.0	ppbv	10	12/22/2018 07:12 PM
Chloromethane	ND		5.0	ppbv	10	12/22/2018 07:12 PM
cis-1,2-Dichloroethene	120		5.0	ppbv	10	12/22/2018 07:12 PM
cis-1,3-Dichloropropene	ND		5.0	ppbv	10	12/22/2018 07:12 PM
Cumene	ND		5.0	ppbv	10	12/22/2018 07:12 PM
Cyclohexane	ND		5.0	ppbv	10	12/22/2018 07:12 PM
Dibromochloromethane	ND		5.0	ppbv	10	12/22/2018 07:12 PM
Dichlorodifluoromethane	ND		5.0	ppbv	10	12/22/2018 07:12 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: 1812729

Sample ID: SC-V-VP-01

Lab ID: 1812729-01

Collection Date: 12/19/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	8.7		5.0	ppbv	10	12/22/2018 07:12 PM
Ethylbenzene	ND		5.0	ppbv	10	12/22/2018 07:12 PM
Freon 113	ND		5.0	ppbv	10	12/22/2018 07:12 PM
Freon 114	ND		5.0	ppbv	10	12/22/2018 07:12 PM
Heptane	ND		5.0	ppbv	10	12/22/2018 07:12 PM
Hexachlorobutadiene	ND		5.0	ppbv	10	12/22/2018 07:12 PM
Hexane	ND		5.0	ppbv	10	12/22/2018 07:12 PM
m,p-Xylene	ND		5.0	ppbv	10	12/22/2018 07:12 PM
Methylene chloride	ND		10	ppbv	10	12/22/2018 07:12 PM
MTBE	ND		5.0	ppbv	10	12/22/2018 07:12 PM
Naphthalene	ND		2.0	ppbv	10	12/22/2018 07:12 PM
o-Xylene	ND		5.0	ppbv	10	12/22/2018 07:12 PM
Propene	ND		5.0	ppbv	10	12/22/2018 07:12 PM
Styrene	ND		5.0	ppbv	10	12/22/2018 07:12 PM
Tetrachloroethene	28		5.0	ppbv	10	12/22/2018 07:12 PM
Tetrahydrofuran	ND		5.0	ppbv	10	12/22/2018 07:12 PM
Toluene	ND		5.0	ppbv	10	12/22/2018 07:12 PM
trans-1,2-Dichloroethene	23		5.0	ppbv	10	12/22/2018 07:12 PM
trans-1,3-Dichloropropene	ND		5.0	ppbv	10	12/22/2018 07:12 PM
Trichloroethene	32		2.0	ppbv	10	12/22/2018 07:12 PM
Trichlorofluoromethane	ND		5.0	ppbv	10	12/22/2018 07:12 PM
Vinyl acetate	ND		5.0	ppbv	10	12/22/2018 07:12 PM
Vinyl chloride	ND		5.0	ppbv	10	12/22/2018 07:12 PM
Surr: Bromofluorobenzene	95.8		60-140	%REC	10	12/22/2018 07:12 PM
TO-15 BY GC/MS			ETO-15			Analyst: MRJ
1,1,1-Trichloroethane	37.1		27.3	µg/m3	10	12/22/2018 07:12 PM
1,1,2,2-Tetrachloroethane	ND		34.3	µg/m3	10	12/22/2018 07:12 PM
1,1,2-Trichloroethane	ND		27.3	µg/m3	10	12/22/2018 07:12 PM
1,1-Dichloroethane	40.5		20.2	µg/m3	10	12/22/2018 07:12 PM
1,1-Dichloroethene	ND		19.8	µg/m3	10	12/22/2018 07:12 PM
1,2,4-Trichlorobenzene	ND		37.1	µg/m3	10	12/22/2018 07:12 PM
1,2,4-Trimethylbenzene	ND		24.6	µg/m3	10	12/22/2018 07:12 PM
1,2-Dibromoethane	ND		38.4	µg/m3	10	12/22/2018 07:12 PM
1,2-Dichlorobenzene	ND		30.1	µg/m3	10	12/22/2018 07:12 PM
1,2-Dichloroethane	ND		20.2	µg/m3	10	12/22/2018 07:12 PM
1,2-Dichloropropane	ND		23.1	µg/m3	10	12/22/2018 07:12 PM
1,3,5-Trimethylbenzene	ND		24.6	µg/m3	10	12/22/2018 07:12 PM
1,3-Butadiene	ND		11.1	µg/m3	10	12/22/2018 07:12 PM
1,3-Dichlorobenzene	ND		30.1	µg/m3	10	12/22/2018 07:12 PM
1,4-Dichlorobenzene	ND		30.1	µg/m3	10	12/22/2018 07:12 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: 1812729

Sample ID: SC-V-VP-01

Lab ID: 1812729-01

Collection Date: 12/19/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		36.0	µg/m3	10	12/22/2018 07:12 PM
2-Butanone	ND		14.7	µg/m3	10	12/22/2018 07:12 PM
2-Hexanone	ND		41.0	µg/m3	10	12/22/2018 07:12 PM
2-Propanol	ND		24.6	µg/m3	10	12/22/2018 07:12 PM
4-Ethyltoluene	ND		24.6	µg/m3	10	12/22/2018 07:12 PM
4-Methyl-2-pentanone	ND		41.0	µg/m3	10	12/22/2018 07:12 PM
Acetone	ND		23.8	µg/m3	10	12/22/2018 07:12 PM
Benzene	ND		16.0	µg/m3	10	12/22/2018 07:12 PM
Benzyl chloride	ND		25.9	µg/m3	10	12/22/2018 07:12 PM
Bromodichloromethane	ND		33.5	µg/m3	10	12/22/2018 07:12 PM
Bromoform	ND		51.7	µg/m3	10	12/22/2018 07:12 PM
Bromomethane	ND		19.4	µg/m3	10	12/22/2018 07:12 PM
Carbon disulfide	30.5		15.6	µg/m3	10	12/22/2018 07:12 PM
Carbon tetrachloride	ND		31.5	µg/m3	10	12/22/2018 07:12 PM
Chlorobenzene	ND		23.0	µg/m3	10	12/22/2018 07:12 PM
Chloroethane	ND		13.2	µg/m3	10	12/22/2018 07:12 PM
Chloroform	ND		9.76	µg/m3	10	12/22/2018 07:12 PM
Chloromethane	ND		10.3	µg/m3	10	12/22/2018 07:12 PM
cis-1,2-Dichloroethene	481		19.8	µg/m3	10	12/22/2018 07:12 PM
cis-1,3-Dichloropropene	ND		22.7	µg/m3	10	12/22/2018 07:12 PM
Cumene	ND		24.6	µg/m3	10	12/22/2018 07:12 PM
Cyclohexane	ND		17.2	µg/m3	10	12/22/2018 07:12 PM
Dibromochloromethane	ND		42.6	µg/m3	10	12/22/2018 07:12 PM
Dichlorodifluoromethane	ND		24.7	µg/m3	10	12/22/2018 07:12 PM
Ethyl acetate	31.4		18.0	µg/m3	10	12/22/2018 07:12 PM
Ethylbenzene	ND		21.7	µg/m3	10	12/22/2018 07:12 PM
Freon 113	ND		38.3	µg/m3	10	12/22/2018 07:12 PM
Freon 114	ND		35.0	µg/m3	10	12/22/2018 07:12 PM
Heptane	ND		20.5	µg/m3	10	12/22/2018 07:12 PM
Hexachlorobutadiene	ND		53.3	µg/m3	10	12/22/2018 07:12 PM
Hexane	ND		17.6	µg/m3	10	12/22/2018 07:12 PM
m,p-Xylene	ND		21.7	µg/m3	10	12/22/2018 07:12 PM
Methylene chloride	ND		34.7	µg/m3	10	12/22/2018 07:12 PM
MTBE	ND		18.0	µg/m3	10	12/22/2018 07:12 PM
Naphthalene	ND		10.5	µg/m3	10	12/22/2018 07:12 PM
o-Xylene	ND		21.7	µg/m3	10	12/22/2018 07:12 PM
Propene	ND		8.61	µg/m3	10	12/22/2018 07:12 PM
Styrene	ND		21.3	µg/m3	10	12/22/2018 07:12 PM
Tetrachloroethene	189		33.9	µg/m3	10	12/22/2018 07:12 PM
Tetrahydrofuran	ND		14.7	µg/m3	10	12/22/2018 07:12 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: 1812729

Sample ID: SC-V-VP-01

Lab ID: 1812729-01

Collection Date: 12/19/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	ND		18.8	µg/m3	10	12/22/2018 07:12 PM
trans-1,2-Dichloroethene	89.6		19.8	µg/m3	10	12/22/2018 07:12 PM
trans-1,3-Dichloropropene	ND		22.7	µg/m3	10	12/22/2018 07:12 PM
Trichloroethene	169		10.7	µg/m3	10	12/22/2018 07:12 PM
Trichlorofluoromethane	ND		28.1	µg/m3	10	12/22/2018 07:12 PM
Vinyl acetate	ND		17.6	µg/m3	10	12/22/2018 07:12 PM
Vinyl chloride	ND		12.8	µg/m3	10	12/22/2018 07:12 PM
Surr: Bromofluorobenzene	95.8		60-140	%REC	10	12/22/2018 07:12 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Sample ID: SC-V-VP-02

Collection Date: 12/19/2018

Work Order: 1812729

Lab ID: 1812729-02

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			ETO-15		Analyst: MRJ	
1,1,1-Trichloroethane	ND		0.50	ppbv	1	12/26/2018 04:44 PM
1,1,2,2-Tetrachloroethane	ND		0.50	ppbv	1	12/26/2018 04:44 PM
1,1,2-Trichloroethane	ND		0.50	ppbv	1	12/26/2018 04:44 PM
1,1-Dichloroethane	ND		0.50	ppbv	1	12/26/2018 04:44 PM
1,1-Dichloroethene	ND		0.50	ppbv	1	12/26/2018 04:44 PM
1,2,4-Trichlorobenzene	ND		0.50	ppbv	1	12/26/2018 04:44 PM
1,2,4-Trimethylbenzene	2.2		0.50	ppbv	1	12/26/2018 04:44 PM
1,2-Dibromoethane	ND		0.50	ppbv	1	12/26/2018 04:44 PM
1,2-Dichlorobenzene	ND		0.50	ppbv	1	12/26/2018 04:44 PM
1,2-Dichloroethane	ND		0.50	ppbv	1	12/26/2018 04:44 PM
1,2-Dichloropropane	ND		0.50	ppbv	1	12/26/2018 04:44 PM
1,3,5-Trimethylbenzene	0.59		0.50	ppbv	1	12/26/2018 04:44 PM
1,3-Butadiene	ND		0.50	ppbv	1	12/26/2018 04:44 PM
1,3-Dichlorobenzene	ND		0.50	ppbv	1	12/26/2018 04:44 PM
1,4-Dichlorobenzene	ND		0.50	ppbv	1	12/26/2018 04:44 PM
1,4-Dioxane	ND		1.0	ppbv	1	12/26/2018 04:44 PM
2-Butanone	ND		0.50	ppbv	1	12/26/2018 04:44 PM
2-Hexanone	ND		1.0	ppbv	1	12/26/2018 04:44 PM
2-Propanol	ND		1.0	ppbv	1	12/26/2018 04:44 PM
4-Ethyltoluene	ND		0.50	ppbv	1	12/26/2018 04:44 PM
4-Methyl-2-pentanone	ND		1.0	ppbv	1	12/26/2018 04:44 PM
Acetone	2.7		1.0	ppbv	1	12/26/2018 04:44 PM
Benzene	2.4		0.50	ppbv	1	12/26/2018 04:44 PM
Benzyl chloride	ND		0.50	ppbv	1	12/26/2018 04:44 PM
Bromodichloromethane	ND		0.50	ppbv	1	12/26/2018 04:44 PM
Bromoform	ND		0.50	ppbv	1	12/26/2018 04:44 PM
Bromomethane	ND		0.50	ppbv	1	12/26/2018 04:44 PM
Carbon disulfide	0.88		0.50	ppbv	1	12/26/2018 04:44 PM
Carbon tetrachloride	ND		0.50	ppbv	1	12/26/2018 04:44 PM
Chlorobenzene	ND		0.50	ppbv	1	12/26/2018 04:44 PM
Chloroethane	ND		0.50	ppbv	1	12/26/2018 04:44 PM
Chloroform	ND		0.20	ppbv	1	12/26/2018 04:44 PM
Chloromethane	0.55		0.50	ppbv	1	12/26/2018 04:44 PM
cis-1,2-Dichloroethene	ND		0.50	ppbv	1	12/26/2018 04:44 PM
cis-1,3-Dichloropropene	ND		0.50	ppbv	1	12/26/2018 04:44 PM
Cumene	ND		0.50	ppbv	1	12/26/2018 04:44 PM
Cyclohexane	0.73		0.50	ppbv	1	12/26/2018 04:44 PM
Dibromochloromethane	ND		0.50	ppbv	1	12/26/2018 04:44 PM
Dichlorodifluoromethane	ND		0.50	ppbv	1	12/26/2018 04:44 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: 1812729

Sample ID: SC-V-VP-02

Lab ID: 1812729-02

Collection Date: 12/19/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		0.50	ppbv	1	12/26/2018 04:44 PM
Ethylbenzene	1.1		0.50	ppbv	1	12/26/2018 04:44 PM
Freon 113	ND		0.50	ppbv	1	12/26/2018 04:44 PM
Freon 114	ND		0.50	ppbv	1	12/26/2018 04:44 PM
Heptane	1.4		0.50	ppbv	1	12/26/2018 04:44 PM
Hexachlorobutadiene	ND		0.50	ppbv	1	12/26/2018 04:44 PM
Hexane	4.5		0.50	ppbv	1	12/26/2018 04:44 PM
m,p-Xylene	4.5		0.50	ppbv	1	12/26/2018 04:44 PM
Methylene chloride	ND		1.0	ppbv	1	12/26/2018 04:44 PM
MTBE	ND		0.50	ppbv	1	12/26/2018 04:44 PM
Naphthalene	ND		0.20	ppbv	1	12/26/2018 04:44 PM
o-Xylene	1.8		0.50	ppbv	1	12/26/2018 04:44 PM
Propene	6.3		0.50	ppbv	1	12/26/2018 04:44 PM
Styrene	ND		0.50	ppbv	1	12/26/2018 04:44 PM
Tetrachloroethene	1.1		0.50	ppbv	1	12/26/2018 04:44 PM
Tetrahydrofuran	ND		0.50	ppbv	1	12/26/2018 04:44 PM
Toluene	6.3		0.50	ppbv	1	12/26/2018 04:44 PM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	12/26/2018 04:44 PM
trans-1,3-Dichloropropene	ND		0.50	ppbv	1	12/26/2018 04:44 PM
Trichloroethene	ND		0.20	ppbv	1	12/26/2018 04:44 PM
Trichlorofluoromethane	ND		0.50	ppbv	1	12/26/2018 04:44 PM
Vinyl acetate	ND		0.50	ppbv	1	12/26/2018 04:44 PM
Vinyl chloride	ND		0.50	ppbv	1	12/26/2018 04:44 PM
<i>Surr: Bromofluorobenzene</i>	<i>87.6</i>		<i>60-140</i>	<i>%REC</i>	1	12/26/2018 04:44 PM
TO-15 BY GC/MS			ETO-15		Analyst: MRJ	
1,1,1-Trichloroethane	ND		2.73	µg/m3	1	12/26/2018 04:44 PM
1,1,2,2-Tetrachloroethane	ND		3.43	µg/m3	1	12/26/2018 04:44 PM
1,1,2-Trichloroethane	ND		2.73	µg/m3	1	12/26/2018 04:44 PM
1,1-Dichloroethane	ND		2.02	µg/m3	1	12/26/2018 04:44 PM
1,1-Dichloroethene	ND		1.98	µg/m3	1	12/26/2018 04:44 PM
1,2,4-Trichlorobenzene	ND		3.71	µg/m3	1	12/26/2018 04:44 PM
1,2,4-Trimethylbenzene	10.6		2.46	µg/m3	1	12/26/2018 04:44 PM
1,2-Dibromoethane	ND		3.84	µg/m3	1	12/26/2018 04:44 PM
1,2-Dichlorobenzene	ND		3.01	µg/m3	1	12/26/2018 04:44 PM
1,2-Dichloroethane	ND		2.02	µg/m3	1	12/26/2018 04:44 PM
1,2-Dichloropropane	ND		2.31	µg/m3	1	12/26/2018 04:44 PM
1,3,5-Trimethylbenzene	2.90		2.46	µg/m3	1	12/26/2018 04:44 PM
1,3-Butadiene	ND		1.11	µg/m3	1	12/26/2018 04:44 PM
1,3-Dichlorobenzene	ND		3.01	µg/m3	1	12/26/2018 04:44 PM
1,4-Dichlorobenzene	ND		3.01	µg/m3	1	12/26/2018 04:44 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Sample ID: SC-V-VP-02

Collection Date: 12/19/2018

Work Order: 1812729

Lab ID: 1812729-02

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		3.60	µg/m3	1	12/26/2018 04:44 PM
2-Butanone	ND		1.47	µg/m3	1	12/26/2018 04:44 PM
2-Hexanone	ND		4.10	µg/m3	1	12/26/2018 04:44 PM
2-Propanol	ND		2.46	µg/m3	1	12/26/2018 04:44 PM
4-Ethyltoluene	ND		2.46	µg/m3	1	12/26/2018 04:44 PM
4-Methyl-2-pentanone	ND		4.10	µg/m3	1	12/26/2018 04:44 PM
Acetone	6.46		2.38	µg/m3	1	12/26/2018 04:44 PM
Benzene	7.60		1.60	µg/m3	1	12/26/2018 04:44 PM
Benzyl chloride	ND		2.59	µg/m3	1	12/26/2018 04:44 PM
Bromodichloromethane	ND		3.35	µg/m3	1	12/26/2018 04:44 PM
Bromoform	ND		5.17	µg/m3	1	12/26/2018 04:44 PM
Bromomethane	ND		1.94	µg/m3	1	12/26/2018 04:44 PM
Carbon disulfide	2.74		1.56	µg/m3	1	12/26/2018 04:44 PM
Carbon tetrachloride	ND		3.15	µg/m3	1	12/26/2018 04:44 PM
Chlorobenzene	ND		2.30	µg/m3	1	12/26/2018 04:44 PM
Chloroethane	ND		1.32	µg/m3	1	12/26/2018 04:44 PM
Chloroform	ND		0.976	µg/m3	1	12/26/2018 04:44 PM
Chloromethane	1.14		1.03	µg/m3	1	12/26/2018 04:44 PM
cis-1,2-Dichloroethene	ND		1.98	µg/m3	1	12/26/2018 04:44 PM
cis-1,3-Dichloropropene	ND		2.27	µg/m3	1	12/26/2018 04:44 PM
Cumene	ND		2.46	µg/m3	1	12/26/2018 04:44 PM
Cyclohexane	2.51		1.72	µg/m3	1	12/26/2018 04:44 PM
Dibromochloromethane	ND		4.26	µg/m3	1	12/26/2018 04:44 PM
Dichlorodifluoromethane	ND		2.47	µg/m3	1	12/26/2018 04:44 PM
Ethyl acetate	ND		1.80	µg/m3	1	12/26/2018 04:44 PM
Ethylbenzene	4.91		2.17	µg/m3	1	12/26/2018 04:44 PM
Freon 113	ND		3.83	µg/m3	1	12/26/2018 04:44 PM
Freon 114	ND		3.50	µg/m3	1	12/26/2018 04:44 PM
Heptane	5.61		2.05	µg/m3	1	12/26/2018 04:44 PM
Hexachlorobutadiene	ND		5.33	µg/m3	1	12/26/2018 04:44 PM
Hexane	15.9		1.76	µg/m3	1	12/26/2018 04:44 PM
m,p-Xylene	19.7		2.17	µg/m3	1	12/26/2018 04:44 PM
Methylene chloride	ND		3.47	µg/m3	1	12/26/2018 04:44 PM
MTBE	ND		1.80	µg/m3	1	12/26/2018 04:44 PM
Naphthalene	ND		1.05	µg/m3	1	12/26/2018 04:44 PM
o-Xylene	7.90		2.17	µg/m3	1	12/26/2018 04:44 PM
Propene	10.8		0.861	µg/m3	1	12/26/2018 04:44 PM
Styrene	ND		2.13	µg/m3	1	12/26/2018 04:44 PM
Tetrachloroethene	7.26		3.39	µg/m3	1	12/26/2018 04:44 PM
Tetrahydrofuran	ND		1.47	µg/m3	1	12/26/2018 04:44 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: 1812729

Sample ID: SC-V-VP-02

Lab ID: 1812729-02

Collection Date: 12/19/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	23.9		1.88	µg/m3	1	12/26/2018 04:44 PM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	12/26/2018 04:44 PM
trans-1,3-Dichloropropene	ND		2.27	µg/m3	1	12/26/2018 04:44 PM
Trichloroethene	ND		1.07	µg/m3	1	12/26/2018 04:44 PM
Trichlorofluoromethane	ND		2.81	µg/m3	1	12/26/2018 04:44 PM
Vinyl acetate	ND		1.76	µg/m3	1	12/26/2018 04:44 PM
Vinyl chloride	ND		1.28	µg/m3	1	12/26/2018 04:44 PM
Surr: Bromofluorobenzene	87.6		60-140	%REC	1	12/26/2018 04:44 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Sample ID: SC-V-VP-03

Collection Date: 12/19/2018

Work Order: 1812729

Lab ID: 1812729-03

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			ETO-15		Analyst: MRJ	
1,1,1-Trichloroethane	ND		5.0	ppbv	10	12/26/2018 03:14 PM
1,1,2,2-Tetrachloroethane	ND		5.0	ppbv	10	12/26/2018 03:14 PM
1,1,2-Trichloroethane	ND		5.0	ppbv	10	12/26/2018 03:14 PM
1,1-Dichloroethane	ND		5.0	ppbv	10	12/26/2018 03:14 PM
1,1-Dichloroethene	ND		5.0	ppbv	10	12/26/2018 03:14 PM
1,2,4-Trichlorobenzene	ND		5.0	ppbv	10	12/26/2018 03:14 PM
1,2,4-Trimethylbenzene	ND		5.0	ppbv	10	12/26/2018 03:14 PM
1,2-Dibromoethane	ND		5.0	ppbv	10	12/26/2018 03:14 PM
1,2-Dichlorobenzene	ND		5.0	ppbv	10	12/26/2018 03:14 PM
1,2-Dichloroethane	ND		5.0	ppbv	10	12/26/2018 03:14 PM
1,2-Dichloropropane	ND		5.0	ppbv	10	12/26/2018 03:14 PM
1,3,5-Trimethylbenzene	ND		5.0	ppbv	10	12/26/2018 03:14 PM
1,3-Butadiene	ND		5.0	ppbv	10	12/26/2018 03:14 PM
1,3-Dichlorobenzene	ND		5.0	ppbv	10	12/26/2018 03:14 PM
1,4-Dichlorobenzene	ND		5.0	ppbv	10	12/26/2018 03:14 PM
1,4-Dioxane	ND		10	ppbv	10	12/26/2018 03:14 PM
2-Butanone	ND		5.0	ppbv	10	12/26/2018 03:14 PM
2-Hexanone	ND		10	ppbv	10	12/26/2018 03:14 PM
2-Propanol	ND		10	ppbv	10	12/26/2018 03:14 PM
4-Ethyltoluene	ND		5.0	ppbv	10	12/26/2018 03:14 PM
4-Methyl-2-pentanone	ND		10	ppbv	10	12/26/2018 03:14 PM
Acetone	ND		10	ppbv	10	12/26/2018 03:14 PM
Benzene	ND		5.0	ppbv	10	12/26/2018 03:14 PM
Benzyl chloride	ND		5.0	ppbv	10	12/26/2018 03:14 PM
Bromodichloromethane	ND		5.0	ppbv	10	12/26/2018 03:14 PM
Bromoform	ND		5.0	ppbv	10	12/26/2018 03:14 PM
Bromomethane	ND		5.0	ppbv	10	12/26/2018 03:14 PM
Carbon disulfide	7.6		5.0	ppbv	10	12/26/2018 03:14 PM
Carbon tetrachloride	14,000		500	ppbv	1000	12/27/2018 02:37 PM
Chlorobenzene	ND		5.0	ppbv	10	12/26/2018 03:14 PM
Chloroethane	ND		5.0	ppbv	10	12/26/2018 03:14 PM
Chloroform	380		200	ppbv	1000	12/27/2018 02:37 PM
Chloromethane	ND		5.0	ppbv	10	12/26/2018 03:14 PM
cis-1,2-Dichloroethene	ND		5.0	ppbv	10	12/26/2018 03:14 PM
cis-1,3-Dichloropropene	ND		5.0	ppbv	10	12/26/2018 03:14 PM
Cumene	ND		5.0	ppbv	10	12/26/2018 03:14 PM
Cyclohexane	18		5.0	ppbv	10	12/26/2018 03:14 PM
Dibromochloromethane	ND		5.0	ppbv	10	12/26/2018 03:14 PM
Dichlorodifluoromethane	ND		5.0	ppbv	10	12/26/2018 03:14 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: 1812729

Sample ID: SC-V-VP-03

Lab ID: 1812729-03

Collection Date: 12/19/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		5.0	ppbv	10	12/26/2018 03:14 PM
Ethylbenzene	ND		5.0	ppbv	10	12/26/2018 03:14 PM
Freon 113	ND		5.0	ppbv	10	12/26/2018 03:14 PM
Freon 114	ND		5.0	ppbv	10	12/26/2018 03:14 PM
Heptane	22		5.0	ppbv	10	12/26/2018 03:14 PM
Hexachlorobutadiene	ND		5.0	ppbv	10	12/26/2018 03:14 PM
Hexane	24		5.0	ppbv	10	12/26/2018 03:14 PM
m,p-Xylene	ND		5.0	ppbv	10	12/26/2018 03:14 PM
Methylene chloride	ND		10	ppbv	10	12/26/2018 03:14 PM
MTBE	ND		5.0	ppbv	10	12/26/2018 03:14 PM
Naphthalene	ND		2.0	ppbv	10	12/26/2018 03:14 PM
o-Xylene	ND		5.0	ppbv	10	12/26/2018 03:14 PM
Propene	55		5.0	ppbv	10	12/26/2018 03:14 PM
Styrene	ND		5.0	ppbv	10	12/26/2018 03:14 PM
Tetrachloroethene	65		5.0	ppbv	10	12/26/2018 03:14 PM
Tetrahydrofuran	ND		5.0	ppbv	10	12/26/2018 03:14 PM
Toluene	ND		5.0	ppbv	10	12/26/2018 03:14 PM
trans-1,2-Dichloroethene	ND		5.0	ppbv	10	12/26/2018 03:14 PM
trans-1,3-Dichloropropene	ND		5.0	ppbv	10	12/26/2018 03:14 PM
Trichloroethene	2.6		2.0	ppbv	10	12/26/2018 03:14 PM
Trichlorofluoromethane	ND		5.0	ppbv	10	12/26/2018 03:14 PM
Vinyl acetate	ND		5.0	ppbv	10	12/26/2018 03:14 PM
Vinyl chloride	ND		5.0	ppbv	10	12/26/2018 03:14 PM
Surr: Bromofluorobenzene	88.4		60-140	%REC	10	12/26/2018 03:14 PM
TO-15 BY GC/MS			ETO-15		Analyst: MRJ	
1,1,1-Trichloroethane	ND		27.3	µg/m3	10	12/26/2018 03:14 PM
1,1,2,2-Tetrachloroethane	ND		34.3	µg/m3	10	12/26/2018 03:14 PM
1,1,2-Trichloroethane	ND		27.3	µg/m3	10	12/26/2018 03:14 PM
1,1-Dichloroethane	ND		20.2	µg/m3	10	12/26/2018 03:14 PM
1,1-Dichloroethene	ND		19.8	µg/m3	10	12/26/2018 03:14 PM
1,2,4-Trichlorobenzene	ND		37.1	µg/m3	10	12/26/2018 03:14 PM
1,2,4-Trimethylbenzene	ND		24.6	µg/m3	10	12/26/2018 03:14 PM
1,2-Dibromoethane	ND		38.4	µg/m3	10	12/26/2018 03:14 PM
1,2-Dichlorobenzene	ND		30.1	µg/m3	10	12/26/2018 03:14 PM
1,2-Dichloroethane	ND		20.2	µg/m3	10	12/26/2018 03:14 PM
1,2-Dichloropropane	ND		23.1	µg/m3	10	12/26/2018 03:14 PM
1,3,5-Trimethylbenzene	ND		24.6	µg/m3	10	12/26/2018 03:14 PM
1,3-Butadiene	ND		11.1	µg/m3	10	12/26/2018 03:14 PM
1,3-Dichlorobenzene	ND		30.1	µg/m3	10	12/26/2018 03:14 PM
1,4-Dichlorobenzene	ND		30.1	µg/m3	10	12/26/2018 03:14 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Sample ID: SC-V-VP-03

Collection Date: 12/19/2018

Work Order: 1812729

Lab ID: 1812729-03

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		36.0	µg/m3	10	12/26/2018 03:14 PM
2-Butanone	ND		14.7	µg/m3	10	12/26/2018 03:14 PM
2-Hexanone	ND		41.0	µg/m3	10	12/26/2018 03:14 PM
2-Propanol	ND		24.6	µg/m3	10	12/26/2018 03:14 PM
4-Ethyltoluene	ND		24.6	µg/m3	10	12/26/2018 03:14 PM
4-Methyl-2-pentanone	ND		41.0	µg/m3	10	12/26/2018 03:14 PM
Acetone	ND		23.8	µg/m3	10	12/26/2018 03:14 PM
Benzene	ND		16.0	µg/m3	10	12/26/2018 03:14 PM
Benzyl chloride	ND		25.9	µg/m3	10	12/26/2018 03:14 PM
Bromodichloromethane	ND		33.5	µg/m3	10	12/26/2018 03:14 PM
Bromoform	ND		51.7	µg/m3	10	12/26/2018 03:14 PM
Bromomethane	ND		19.4	µg/m3	10	12/26/2018 03:14 PM
Carbon disulfide	23.7		15.6	µg/m3	10	12/26/2018 03:14 PM
Carbon tetrachloride	87,800		3,150	µg/m3	1000	12/27/2018 02:37 PM
Chlorobenzene	ND		23.0	µg/m3	10	12/26/2018 03:14 PM
Chloroethane	ND		13.2	µg/m3	10	12/26/2018 03:14 PM
Chloroform	1,860		976	µg/m3	1000	12/27/2018 02:37 PM
Chloromethane	ND		10.3	µg/m3	10	12/26/2018 03:14 PM
cis-1,2-Dichloroethene	ND		19.8	µg/m3	10	12/26/2018 03:14 PM
cis-1,3-Dichloropropene	ND		22.7	µg/m3	10	12/26/2018 03:14 PM
Cumene	ND		24.6	µg/m3	10	12/26/2018 03:14 PM
Cyclohexane	61.3		17.2	µg/m3	10	12/26/2018 03:14 PM
Dibromochloromethane	ND		42.6	µg/m3	10	12/26/2018 03:14 PM
Dichlorodifluoromethane	ND		24.7	µg/m3	10	12/26/2018 03:14 PM
Ethyl acetate	ND		18.0	µg/m3	10	12/26/2018 03:14 PM
Ethylbenzene	ND		21.7	µg/m3	10	12/26/2018 03:14 PM
Freon 113	ND		38.3	µg/m3	10	12/26/2018 03:14 PM
Freon 114	ND		35.0	µg/m3	10	12/26/2018 03:14 PM
Heptane	91.8		20.5	µg/m3	10	12/26/2018 03:14 PM
Hexachlorobutadiene	ND		53.3	µg/m3	10	12/26/2018 03:14 PM
Hexane	83.5		17.6	µg/m3	10	12/26/2018 03:14 PM
m,p-Xylene	ND		21.7	µg/m3	10	12/26/2018 03:14 PM
Methylene chloride	ND		34.7	µg/m3	10	12/26/2018 03:14 PM
MTBE	ND		18.0	µg/m3	10	12/26/2018 03:14 PM
Naphthalene	ND		10.5	µg/m3	10	12/26/2018 03:14 PM
o-Xylene	ND		21.7	µg/m3	10	12/26/2018 03:14 PM
Propene	95.2		8.61	µg/m3	10	12/26/2018 03:14 PM
Styrene	ND		21.3	µg/m3	10	12/26/2018 03:14 PM
Tetrachloroethene	442		33.9	µg/m3	10	12/26/2018 03:14 PM
Tetrahydrofuran	ND		14.7	µg/m3	10	12/26/2018 03:14 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group**Project:** Swan Cleaners-Mansfield MS19-06; ODAS0002-50**Work Order:** 1812729**Sample ID:** SC-V-VP-03**Lab ID:** 1812729-03**Collection Date:** 12/19/2018**Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	ND		18.8	µg/m3	10	12/26/2018 03:14 PM
trans-1,2-Dichloroethene	ND		19.8	µg/m3	10	12/26/2018 03:14 PM
trans-1,3-Dichloropropene	ND		22.7	µg/m3	10	12/26/2018 03:14 PM
Trichloroethene	14.0		10.7	µg/m3	10	12/26/2018 03:14 PM
Trichlorofluoromethane	ND		28.1	µg/m3	10	12/26/2018 03:14 PM
Vinyl acetate	ND		17.6	µg/m3	10	12/26/2018 03:14 PM
Vinyl chloride	ND		12.8	µg/m3	10	12/26/2018 03:14 PM
Surr: Bromofluorobenzene	88.4		60-140	%REC	10	12/26/2018 03:14 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Sample ID: SC-V-VP-04

Collection Date: 12/19/2018

Work Order: 1812729

Lab ID: 1812729-04

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			ETO-15		Analyst: MRJ	
1,1,1-Trichloroethane	ND		0.50	ppbv	1	12/22/2018 07:57 PM
1,1,2,2-Tetrachloroethane	ND		0.50	ppbv	1	12/22/2018 07:57 PM
1,1,2-Trichloroethane	ND		0.50	ppbv	1	12/22/2018 07:57 PM
1,1-Dichloroethane	ND		0.50	ppbv	1	12/22/2018 07:57 PM
1,1-Dichloroethene	ND		0.50	ppbv	1	12/22/2018 07:57 PM
1,2,4-Trichlorobenzene	ND		0.50	ppbv	1	12/22/2018 07:57 PM
1,2,4-Trimethylbenzene	ND		0.50	ppbv	1	12/22/2018 07:57 PM
1,2-Dibromoethane	ND		0.50	ppbv	1	12/22/2018 07:57 PM
1,2-Dichlorobenzene	ND		0.50	ppbv	1	12/22/2018 07:57 PM
1,2-Dichloroethane	ND		0.50	ppbv	1	12/22/2018 07:57 PM
1,2-Dichloropropane	ND		0.50	ppbv	1	12/22/2018 07:57 PM
1,3,5-Trimethylbenzene	ND		0.50	ppbv	1	12/22/2018 07:57 PM
1,3-Butadiene	ND		0.50	ppbv	1	12/22/2018 07:57 PM
1,3-Dichlorobenzene	ND		0.50	ppbv	1	12/22/2018 07:57 PM
1,4-Dichlorobenzene	ND		0.50	ppbv	1	12/22/2018 07:57 PM
1,4-Dioxane	ND		1.0	ppbv	1	12/22/2018 07:57 PM
2-Butanone	ND		0.50	ppbv	1	12/22/2018 07:57 PM
2-Hexanone	ND		1.0	ppbv	1	12/22/2018 07:57 PM
2-Propanol	ND		1.0	ppbv	1	12/22/2018 07:57 PM
4-Ethyltoluene	ND		0.50	ppbv	1	12/22/2018 07:57 PM
4-Methyl-2-pentanone	ND		1.0	ppbv	1	12/22/2018 07:57 PM
Acetone	3.1		1.0	ppbv	1	12/22/2018 07:57 PM
Benzene	ND		0.50	ppbv	1	12/22/2018 07:57 PM
Benzyl chloride	ND		0.50	ppbv	1	12/22/2018 07:57 PM
Bromodichloromethane	ND		0.50	ppbv	1	12/22/2018 07:57 PM
Bromoform	ND		0.50	ppbv	1	12/22/2018 07:57 PM
Bromomethane	ND		0.50	ppbv	1	12/22/2018 07:57 PM
Carbon disulfide	0.55		0.50	ppbv	1	12/22/2018 07:57 PM
Carbon tetrachloride	1.1		0.50	ppbv	1	12/22/2018 07:57 PM
Chlorobenzene	ND		0.50	ppbv	1	12/22/2018 07:57 PM
Chloroethane	ND		0.50	ppbv	1	12/22/2018 07:57 PM
Chloroform	ND		0.20	ppbv	1	12/22/2018 07:57 PM
Chloromethane	0.79		0.50	ppbv	1	12/22/2018 07:57 PM
cis-1,2-Dichloroethene	ND		0.50	ppbv	1	12/22/2018 07:57 PM
cis-1,3-Dichloropropene	ND		0.50	ppbv	1	12/22/2018 07:57 PM
Cumene	ND		0.50	ppbv	1	12/22/2018 07:57 PM
Cyclohexane	ND		0.50	ppbv	1	12/22/2018 07:57 PM
Dibromochloromethane	ND		0.50	ppbv	1	12/22/2018 07:57 PM
Dichlorodifluoromethane	0.58		0.50	ppbv	1	12/22/2018 07:57 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: 1812729

Sample ID: SC-V-VP-04

Lab ID: 1812729-04

Collection Date: 12/19/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		0.50	ppbv	1	12/22/2018 07:57 PM
Ethylbenzene	ND		0.50	ppbv	1	12/22/2018 07:57 PM
Freon 113	ND		0.50	ppbv	1	12/22/2018 07:57 PM
Freon 114	ND		0.50	ppbv	1	12/22/2018 07:57 PM
Heptane	ND		0.50	ppbv	1	12/22/2018 07:57 PM
Hexachlorobutadiene	ND		0.50	ppbv	1	12/22/2018 07:57 PM
Hexane	ND		0.50	ppbv	1	12/22/2018 07:57 PM
m,p-Xylene	ND		0.50	ppbv	1	12/22/2018 07:57 PM
Methylene chloride	ND		1.0	ppbv	1	12/22/2018 07:57 PM
MTBE	ND		0.50	ppbv	1	12/22/2018 07:57 PM
Naphthalene	ND		0.20	ppbv	1	12/22/2018 07:57 PM
o-Xylene	ND		0.50	ppbv	1	12/22/2018 07:57 PM
Propene	ND		0.50	ppbv	1	12/22/2018 07:57 PM
Styrene	ND		0.50	ppbv	1	12/22/2018 07:57 PM
Tetrachloroethene	1.4		0.50	ppbv	1	12/22/2018 07:57 PM
Tetrahydrofuran	ND		0.50	ppbv	1	12/22/2018 07:57 PM
Toluene	ND		0.50	ppbv	1	12/22/2018 07:57 PM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	12/22/2018 07:57 PM
trans-1,3-Dichloropropene	ND		0.50	ppbv	1	12/22/2018 07:57 PM
Trichloroethene	ND		0.20	ppbv	1	12/22/2018 07:57 PM
Trichlorofluoromethane	ND		0.50	ppbv	1	12/22/2018 07:57 PM
Vinyl acetate	ND		0.50	ppbv	1	12/22/2018 07:57 PM
Vinyl chloride	ND		0.50	ppbv	1	12/22/2018 07:57 PM
Surr: Bromofluorobenzene	97.4		60-140	%REC	1	12/22/2018 07:57 PM

TO-15 BY GC/MS

ETO-15

Analyst: MRJ

1,1,1-Trichloroethane	ND		2.73	µg/m3	1	12/22/2018 07:57 PM
1,1,2,2-Tetrachloroethane	ND		3.43	µg/m3	1	12/22/2018 07:57 PM
1,1,2-Trichloroethane	ND		2.73	µg/m3	1	12/22/2018 07:57 PM
1,1-Dichloroethane	ND		2.02	µg/m3	1	12/22/2018 07:57 PM
1,1-Dichloroethene	ND		1.98	µg/m3	1	12/22/2018 07:57 PM
1,2,4-Trichlorobenzene	ND		3.71	µg/m3	1	12/22/2018 07:57 PM
1,2,4-Trimethylbenzene	ND		2.46	µg/m3	1	12/22/2018 07:57 PM
1,2-Dibromoethane	ND		3.84	µg/m3	1	12/22/2018 07:57 PM
1,2-Dichlorobenzene	ND		3.01	µg/m3	1	12/22/2018 07:57 PM
1,2-Dichloroethane	ND		2.02	µg/m3	1	12/22/2018 07:57 PM
1,2-Dichloropropane	ND		2.31	µg/m3	1	12/22/2018 07:57 PM
1,3,5-Trimethylbenzene	ND		2.46	µg/m3	1	12/22/2018 07:57 PM
1,3-Butadiene	ND		1.11	µg/m3	1	12/22/2018 07:57 PM
1,3-Dichlorobenzene	ND		3.01	µg/m3	1	12/22/2018 07:57 PM
1,4-Dichlorobenzene	ND		3.01	µg/m3	1	12/22/2018 07:57 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: 1812729

Sample ID: SC-V-VP-04

Lab ID: 1812729-04

Collection Date: 12/19/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		3.60	µg/m3	1	12/22/2018 07:57 PM
2-Butanone	ND		1.47	µg/m3	1	12/22/2018 07:57 PM
2-Hexanone	ND		4.10	µg/m3	1	12/22/2018 07:57 PM
2-Propanol	ND		2.46	µg/m3	1	12/22/2018 07:57 PM
4-Ethyltoluene	ND		2.46	µg/m3	1	12/22/2018 07:57 PM
4-Methyl-2-pentanone	ND		4.10	µg/m3	1	12/22/2018 07:57 PM
Acetone	7.29		2.38	µg/m3	1	12/22/2018 07:57 PM
Benzene	ND		1.60	µg/m3	1	12/22/2018 07:57 PM
Benzyl chloride	ND		2.59	µg/m3	1	12/22/2018 07:57 PM
Bromodichloromethane	ND		3.35	µg/m3	1	12/22/2018 07:57 PM
Bromoform	ND		5.17	µg/m3	1	12/22/2018 07:57 PM
Bromomethane	ND		1.94	µg/m3	1	12/22/2018 07:57 PM
Carbon disulfide	1.71		1.56	µg/m3	1	12/22/2018 07:57 PM
Carbon tetrachloride	7.11		3.15	µg/m3	1	12/22/2018 07:57 PM
Chlorobenzene	ND		2.30	µg/m3	1	12/22/2018 07:57 PM
Chloroethane	ND		1.32	µg/m3	1	12/22/2018 07:57 PM
Chloroform	ND		0.976	µg/m3	1	12/22/2018 07:57 PM
Chloromethane	1.63		1.03	µg/m3	1	12/22/2018 07:57 PM
cis-1,2-Dichloroethene	ND		1.98	µg/m3	1	12/22/2018 07:57 PM
cis-1,3-Dichloropropene	ND		2.27	µg/m3	1	12/22/2018 07:57 PM
Cumene	ND		2.46	µg/m3	1	12/22/2018 07:57 PM
Cyclohexane	ND		1.72	µg/m3	1	12/22/2018 07:57 PM
Dibromochloromethane	ND		4.26	µg/m3	1	12/22/2018 07:57 PM
Dichlorodifluoromethane	2.87		2.47	µg/m3	1	12/22/2018 07:57 PM
Ethyl acetate	ND		1.80	µg/m3	1	12/22/2018 07:57 PM
Ethylbenzene	ND		2.17	µg/m3	1	12/22/2018 07:57 PM
Freon 113	ND		3.83	µg/m3	1	12/22/2018 07:57 PM
Freon 114	ND		3.50	µg/m3	1	12/22/2018 07:57 PM
Heptane	ND		2.05	µg/m3	1	12/22/2018 07:57 PM
Hexachlorobutadiene	ND		5.33	µg/m3	1	12/22/2018 07:57 PM
Hexane	ND		1.76	µg/m3	1	12/22/2018 07:57 PM
m,p-Xylene	ND		2.17	µg/m3	1	12/22/2018 07:57 PM
Methylene chloride	ND		3.47	µg/m3	1	12/22/2018 07:57 PM
MTBE	ND		1.80	µg/m3	1	12/22/2018 07:57 PM
Naphthalene	ND		1.05	µg/m3	1	12/22/2018 07:57 PM
o-Xylene	ND		2.17	µg/m3	1	12/22/2018 07:57 PM
Propene	ND		0.861	µg/m3	1	12/22/2018 07:57 PM
Styrene	ND		2.13	µg/m3	1	12/22/2018 07:57 PM
Tetrachloroethene	9.36		3.39	µg/m3	1	12/22/2018 07:57 PM
Tetrahydrofuran	ND		1.47	µg/m3	1	12/22/2018 07:57 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: 1812729

Sample ID: SC-V-VP-04

Lab ID: 1812729-04

Collection Date: 12/19/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	ND		1.88	µg/m3	1	12/22/2018 07:57 PM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	12/22/2018 07:57 PM
trans-1,3-Dichloropropene	ND		2.27	µg/m3	1	12/22/2018 07:57 PM
Trichloroethene	ND		1.07	µg/m3	1	12/22/2018 07:57 PM
Trichlorofluoromethane	ND		2.81	µg/m3	1	12/22/2018 07:57 PM
Vinyl acetate	ND		1.76	µg/m3	1	12/22/2018 07:57 PM
Vinyl chloride	ND		1.28	µg/m3	1	12/22/2018 07:57 PM
Surr: Bromofluorobenzene	97.4		60-140	%REC	1	12/22/2018 07:57 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Sample ID: SC-V-VP-05

Collection Date: 12/19/2018

Work Order: 1812729

Lab ID: 1812729-05

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			ETO-15			Analyst: MRJ
1,1,1-Trichloroethane	ND		0.50	ppbv	1	12/22/2018 10:14 PM
1,1,2,2-Tetrachloroethane	ND		0.50	ppbv	1	12/22/2018 10:14 PM
1,1,2-Trichloroethane	ND		0.50	ppbv	1	12/22/2018 10:14 PM
1,1-Dichloroethane	ND		0.50	ppbv	1	12/22/2018 10:14 PM
1,1-Dichloroethene	ND		0.50	ppbv	1	12/22/2018 10:14 PM
1,2,4-Trichlorobenzene	ND		0.50	ppbv	1	12/22/2018 10:14 PM
1,2,4-Trimethylbenzene	ND		0.50	ppbv	1	12/22/2018 10:14 PM
1,2-Dibromoethane	ND		0.50	ppbv	1	12/22/2018 10:14 PM
1,2-Dichlorobenzene	ND		0.50	ppbv	1	12/22/2018 10:14 PM
1,2-Dichloroethane	ND		0.50	ppbv	1	12/22/2018 10:14 PM
1,2-Dichloropropane	ND		0.50	ppbv	1	12/22/2018 10:14 PM
1,3,5-Trimethylbenzene	ND		0.50	ppbv	1	12/22/2018 10:14 PM
1,3-Butadiene	ND		0.50	ppbv	1	12/22/2018 10:14 PM
1,3-Dichlorobenzene	ND		0.50	ppbv	1	12/22/2018 10:14 PM
1,4-Dichlorobenzene	ND		0.50	ppbv	1	12/22/2018 10:14 PM
1,4-Dioxane	ND		1.0	ppbv	1	12/22/2018 10:14 PM
2-Butanone	ND		0.50	ppbv	1	12/22/2018 10:14 PM
2-Hexanone	ND		1.0	ppbv	1	12/22/2018 10:14 PM
2-Propanol	ND		1.0	ppbv	1	12/22/2018 10:14 PM
4-Ethyltoluene	ND		0.50	ppbv	1	12/22/2018 10:14 PM
4-Methyl-2-pentanone	ND		1.0	ppbv	1	12/22/2018 10:14 PM
Acetone	5.3		1.0	ppbv	1	12/22/2018 10:14 PM
Benzene	ND		0.50	ppbv	1	12/22/2018 10:14 PM
Benzyl chloride	ND		0.50	ppbv	1	12/22/2018 10:14 PM
Bromodichloromethane	ND		0.50	ppbv	1	12/22/2018 10:14 PM
Bromoform	ND		0.50	ppbv	1	12/22/2018 10:14 PM
Bromomethane	ND		0.50	ppbv	1	12/22/2018 10:14 PM
Carbon disulfide	0.94		0.50	ppbv	1	12/22/2018 10:14 PM
Carbon tetrachloride	ND		0.50	ppbv	1	12/22/2018 10:14 PM
Chlorobenzene	ND		0.50	ppbv	1	12/22/2018 10:14 PM
Chloroethane	ND		0.50	ppbv	1	12/22/2018 10:14 PM
Chloroform	ND		0.20	ppbv	1	12/22/2018 10:14 PM
Chloromethane	0.81		0.50	ppbv	1	12/22/2018 10:14 PM
cis-1,2-Dichloroethene	ND		0.50	ppbv	1	12/22/2018 10:14 PM
cis-1,3-Dichloropropene	ND		0.50	ppbv	1	12/22/2018 10:14 PM
Cumene	ND		0.50	ppbv	1	12/22/2018 10:14 PM
Cyclohexane	1.0		0.50	ppbv	1	12/22/2018 10:14 PM
Dibromochloromethane	ND		0.50	ppbv	1	12/22/2018 10:14 PM
Dichlorodifluoromethane	0.55		0.50	ppbv	1	12/22/2018 10:14 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: 1812729

Sample ID: SC-V-VP-05

Lab ID: 1812729-05

Collection Date: 12/19/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		0.50	ppbv	1	12/22/2018 10:14 PM
Ethylbenzene	ND		0.50	ppbv	1	12/22/2018 10:14 PM
Freon 113	ND		0.50	ppbv	1	12/22/2018 10:14 PM
Freon 114	ND		0.50	ppbv	1	12/22/2018 10:14 PM
Heptane	1.5		0.50	ppbv	1	12/22/2018 10:14 PM
Hexachlorobutadiene	ND		0.50	ppbv	1	12/22/2018 10:14 PM
Hexane	1.6		0.50	ppbv	1	12/22/2018 10:14 PM
m,p-Xylene	ND		0.50	ppbv	1	12/22/2018 10:14 PM
Methylene chloride	ND		1.0	ppbv	1	12/22/2018 10:14 PM
MTBE	ND		0.50	ppbv	1	12/22/2018 10:14 PM
Naphthalene	ND		0.20	ppbv	1	12/22/2018 10:14 PM
o-Xylene	ND		0.50	ppbv	1	12/22/2018 10:14 PM
Propene	ND		0.50	ppbv	1	12/22/2018 10:14 PM
Styrene	ND		0.50	ppbv	1	12/22/2018 10:14 PM
Tetrachloroethene	ND		0.50	ppbv	1	12/22/2018 10:14 PM
Tetrahydrofuran	ND		0.50	ppbv	1	12/22/2018 10:14 PM
Toluene	ND		0.50	ppbv	1	12/22/2018 10:14 PM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	12/22/2018 10:14 PM
trans-1,3-Dichloropropene	ND		0.50	ppbv	1	12/22/2018 10:14 PM
Trichloroethene	0.24		0.20	ppbv	1	12/22/2018 10:14 PM
Trichlorofluoromethane	ND		0.50	ppbv	1	12/22/2018 10:14 PM
Vinyl acetate	ND		0.50	ppbv	1	12/22/2018 10:14 PM
Vinyl chloride	ND		0.50	ppbv	1	12/22/2018 10:14 PM
<i>Surr: Bromofluorobenzene</i>	98.8		60-140	%REC	1	12/22/2018 10:14 PM

TO-15 BY GC/MS

ETO-15

Analyst: MRJ

1,1,1-Trichloroethane	ND		2.73	µg/m3	1	12/22/2018 10:14 PM
1,1,2,2-Tetrachloroethane	ND		3.43	µg/m3	1	12/22/2018 10:14 PM
1,1,2-Trichloroethane	ND		2.73	µg/m3	1	12/22/2018 10:14 PM
1,1-Dichloroethane	ND		2.02	µg/m3	1	12/22/2018 10:14 PM
1,1-Dichloroethene	ND		1.98	µg/m3	1	12/22/2018 10:14 PM
1,2,4-Trichlorobenzene	ND		3.71	µg/m3	1	12/22/2018 10:14 PM
1,2,4-Trimethylbenzene	ND		2.46	µg/m3	1	12/22/2018 10:14 PM
1,2-Dibromoethane	ND		3.84	µg/m3	1	12/22/2018 10:14 PM
1,2-Dichlorobenzene	ND		3.01	µg/m3	1	12/22/2018 10:14 PM
1,2-Dichloroethane	ND		2.02	µg/m3	1	12/22/2018 10:14 PM
1,2-Dichloropropane	ND		2.31	µg/m3	1	12/22/2018 10:14 PM
1,3,5-Trimethylbenzene	ND		2.46	µg/m3	1	12/22/2018 10:14 PM
1,3-Butadiene	ND		1.11	µg/m3	1	12/22/2018 10:14 PM
1,3-Dichlorobenzene	ND		3.01	µg/m3	1	12/22/2018 10:14 PM
1,4-Dichlorobenzene	ND		3.01	µg/m3	1	12/22/2018 10:14 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: 1812729

Sample ID: SC-V-VP-05

Lab ID: 1812729-05

Collection Date: 12/19/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		3.60	µg/m3	1	12/22/2018 10:14 PM
2-Butanone	ND		1.47	µg/m3	1	12/22/2018 10:14 PM
2-Hexanone	ND		4.10	µg/m3	1	12/22/2018 10:14 PM
2-Propanol	ND		2.46	µg/m3	1	12/22/2018 10:14 PM
4-Ethyltoluene	ND		2.46	µg/m3	1	12/22/2018 10:14 PM
4-Methyl-2-pentanone	ND		4.10	µg/m3	1	12/22/2018 10:14 PM
Acetone	12.6		2.38	µg/m3	1	12/22/2018 10:14 PM
Benzene	ND		1.60	µg/m3	1	12/22/2018 10:14 PM
Benzyl chloride	ND		2.59	µg/m3	1	12/22/2018 10:14 PM
Bromodichloromethane	ND		3.35	µg/m3	1	12/22/2018 10:14 PM
Bromoform	ND		5.17	µg/m3	1	12/22/2018 10:14 PM
Bromomethane	ND		1.94	µg/m3	1	12/22/2018 10:14 PM
Carbon disulfide	2.93		1.56	µg/m3	1	12/22/2018 10:14 PM
Carbon tetrachloride	ND		3.15	µg/m3	1	12/22/2018 10:14 PM
Chlorobenzene	ND		2.30	µg/m3	1	12/22/2018 10:14 PM
Chloroethane	ND		1.32	µg/m3	1	12/22/2018 10:14 PM
Chloroform	ND		0.976	µg/m3	1	12/22/2018 10:14 PM
Chloromethane	1.67		1.03	µg/m3	1	12/22/2018 10:14 PM
cis-1,2-Dichloroethene	ND		1.98	µg/m3	1	12/22/2018 10:14 PM
cis-1,3-Dichloropropene	ND		2.27	µg/m3	1	12/22/2018 10:14 PM
Cumene	ND		2.46	µg/m3	1	12/22/2018 10:14 PM
Cyclohexane	3.48		1.72	µg/m3	1	12/22/2018 10:14 PM
Dibromochloromethane	ND		4.26	µg/m3	1	12/22/2018 10:14 PM
Dichlorodifluoromethane	2.72		2.47	µg/m3	1	12/22/2018 10:14 PM
Ethyl acetate	ND		1.80	µg/m3	1	12/22/2018 10:14 PM
Ethylbenzene	ND		2.17	µg/m3	1	12/22/2018 10:14 PM
Freon 113	ND		3.83	µg/m3	1	12/22/2018 10:14 PM
Freon 114	ND		3.50	µg/m3	1	12/22/2018 10:14 PM
Heptane	6.15		2.05	µg/m3	1	12/22/2018 10:14 PM
Hexachlorobutadiene	ND		5.33	µg/m3	1	12/22/2018 10:14 PM
Hexane	5.82		1.76	µg/m3	1	12/22/2018 10:14 PM
m,p-Xylene	ND		2.17	µg/m3	1	12/22/2018 10:14 PM
Methylene chloride	ND		3.47	µg/m3	1	12/22/2018 10:14 PM
MTBE	ND		1.80	µg/m3	1	12/22/2018 10:14 PM
Naphthalene	ND		1.05	µg/m3	1	12/22/2018 10:14 PM
o-Xylene	ND		2.17	µg/m3	1	12/22/2018 10:14 PM
Propene	ND		0.861	µg/m3	1	12/22/2018 10:14 PM
Styrene	ND		2.13	µg/m3	1	12/22/2018 10:14 PM
Tetrachloroethene	ND		3.39	µg/m3	1	12/22/2018 10:14 PM
Tetrahydrofuran	ND		1.47	µg/m3	1	12/22/2018 10:14 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: 1812729

Sample ID: SC-V-VP-05

Lab ID: 1812729-05

Collection Date: 12/19/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	ND		1.88	µg/m3	1	12/22/2018 10:14 PM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	12/22/2018 10:14 PM
trans-1,3-Dichloropropene	ND		2.27	µg/m3	1	12/22/2018 10:14 PM
Trichloroethene	1.29		1.07	µg/m3	1	12/22/2018 10:14 PM
Trichlorofluoromethane	ND		2.81	µg/m3	1	12/22/2018 10:14 PM
Vinyl acetate	ND		1.76	µg/m3	1	12/22/2018 10:14 PM
Vinyl chloride	ND		1.28	µg/m3	1	12/22/2018 10:14 PM
Surr: Bromofluorobenzene	98.8		60-140	%REC	1	12/22/2018 10:14 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: 1812729

Sample ID: SC-V-VP-06

Lab ID: 1812729-06

Collection Date: 12/19/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			ETO-15			Analyst: MRJ
1,1,1-Trichloroethane	ND		5.0	ppbv	10	12/26/2018 02:19 PM
1,1,2,2-Tetrachloroethane	ND		5.0	ppbv	10	12/26/2018 02:19 PM
1,1,2-Trichloroethane	ND		5.0	ppbv	10	12/26/2018 02:19 PM
1,1-Dichloroethane	ND		5.0	ppbv	10	12/26/2018 02:19 PM
1,1-Dichloroethene	ND		5.0	ppbv	10	12/26/2018 02:19 PM
1,2,4-Trichlorobenzene	ND		5.0	ppbv	10	12/26/2018 02:19 PM
1,2,4-Trimethylbenzene	480		250	ppbv	500	12/27/2018 12:56 AM
1,2-Dibromoethane	ND		5.0	ppbv	10	12/26/2018 02:19 PM
1,2-Dichlorobenzene	ND		5.0	ppbv	10	12/26/2018 02:19 PM
1,2-Dichloroethane	ND		5.0	ppbv	10	12/26/2018 02:19 PM
1,2-Dichloropropane	ND		5.0	ppbv	10	12/26/2018 02:19 PM
1,3,5-Trimethylbenzene	250		250	ppbv	500	12/27/2018 12:56 AM
1,3-Butadiene	ND		5.0	ppbv	10	12/26/2018 02:19 PM
1,3-Dichlorobenzene	ND		5.0	ppbv	10	12/26/2018 02:19 PM
1,4-Dichlorobenzene	ND		5.0	ppbv	10	12/26/2018 02:19 PM
1,4-Dioxane	ND		10	ppbv	10	12/26/2018 02:19 PM
2-Butanone	ND		5.0	ppbv	10	12/26/2018 02:19 PM
2-Hexanone	ND		10	ppbv	10	12/26/2018 02:19 PM
2-Propanol	ND		10	ppbv	10	12/26/2018 02:19 PM
4-Ethyltoluene	190		5.0	ppbv	10	12/26/2018 02:19 PM
4-Methyl-2-pentanone	ND		10	ppbv	10	12/26/2018 02:19 PM
Acetone	ND		10	ppbv	10	12/26/2018 02:19 PM
Benzene	58		5.0	ppbv	10	12/26/2018 02:19 PM
Benzyl chloride	14		5.0	ppbv	10	12/26/2018 02:19 PM
Bromodichloromethane	ND		5.0	ppbv	10	12/26/2018 02:19 PM
Bromoform	ND		5.0	ppbv	10	12/26/2018 02:19 PM
Bromomethane	ND		5.0	ppbv	10	12/26/2018 02:19 PM
Carbon disulfide	7.9		5.0	ppbv	10	12/26/2018 02:19 PM
Carbon tetrachloride	ND		5.0	ppbv	10	12/26/2018 02:19 PM
Chlorobenzene	ND		5.0	ppbv	10	12/26/2018 02:19 PM
Chloroethane	11		5.0	ppbv	10	12/26/2018 02:19 PM
Chloroform	ND		2.0	ppbv	10	12/26/2018 02:19 PM
Chloromethane	ND		5.0	ppbv	10	12/26/2018 02:19 PM
cis-1,2-Dichloroethene	35		5.0	ppbv	10	12/26/2018 02:19 PM
cis-1,3-Dichloropropene	ND		5.0	ppbv	10	12/26/2018 02:19 PM
Cumene	170		5.0	ppbv	10	12/26/2018 02:19 PM
Cyclohexane	9,500		250	ppbv	500	12/27/2018 12:56 AM
Dibromochloromethane	ND		5.0	ppbv	10	12/26/2018 02:19 PM
Dichlorodifluoromethane	ND		5.0	ppbv	10	12/26/2018 02:19 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: 1812729

Sample ID: SC-V-VP-06

Lab ID: 1812729-06

Collection Date: 12/19/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		5.0	ppbv	10	12/26/2018 02:19 PM
Ethylbenzene	250		5.0	ppbv	10	12/26/2018 02:19 PM
Freon 113	ND		5.0	ppbv	10	12/26/2018 02:19 PM
Freon 114	ND		5.0	ppbv	10	12/26/2018 02:19 PM
Heptane	16,000		500	ppbv	1000	12/27/2018 03:26 PM
Hexachlorobutadiene	ND		5.0	ppbv	10	12/26/2018 02:19 PM
Hexane	15,000		500	ppbv	1000	12/27/2018 03:26 PM
m,p-Xylene	130		5.0	ppbv	10	12/26/2018 02:19 PM
Methylene chloride	ND		10	ppbv	10	12/26/2018 02:19 PM
MTBE	ND		5.0	ppbv	10	12/26/2018 02:19 PM
Naphthalene	ND		2.0	ppbv	10	12/26/2018 02:19 PM
o-Xylene	110		5.0	ppbv	10	12/26/2018 02:19 PM
Propene	ND		5.0	ppbv	10	12/26/2018 02:19 PM
Styrene	ND		5.0	ppbv	10	12/26/2018 02:19 PM
Tetrachloroethene	21		5.0	ppbv	10	12/26/2018 02:19 PM
Tetrahydrofuran	ND		5.0	ppbv	10	12/26/2018 02:19 PM
Toluene	9.7		5.0	ppbv	10	12/26/2018 02:19 PM
trans-1,2-Dichloroethene	10		5.0	ppbv	10	12/26/2018 02:19 PM
trans-1,3-Dichloropropene	ND		5.0	ppbv	10	12/26/2018 02:19 PM
Trichloroethene	51		2.0	ppbv	10	12/26/2018 02:19 PM
Trichlorofluoromethane	ND		5.0	ppbv	10	12/26/2018 02:19 PM
Vinyl acetate	ND		5.0	ppbv	10	12/26/2018 02:19 PM
Vinyl chloride	ND		5.0	ppbv	10	12/26/2018 02:19 PM
<i>Surr: Bromofluorobenzene</i>	95.3		60-140	%REC	10	12/26/2018 02:19 PM
TO-15 BY GC/MS			ETO-15			Analyst: MRJ
1,1,1-Trichloroethane	ND		27.3	µg/m3	10	12/26/2018 02:19 PM
1,1,2,2-Tetrachloroethane	ND		34.3	µg/m3	10	12/26/2018 02:19 PM
1,1,2-Trichloroethane	ND		27.3	µg/m3	10	12/26/2018 02:19 PM
1,1-Dichloroethane	ND		20.2	µg/m3	10	12/26/2018 02:19 PM
1,1-Dichloroethene	ND		19.8	µg/m3	10	12/26/2018 02:19 PM
1,2,4-Trichlorobenzene	ND		37.1	µg/m3	10	12/26/2018 02:19 PM
1,2,4-Trimethylbenzene	2,340		1,230	µg/m3	500	12/27/2018 12:56 AM
1,2-Dibromoethane	ND		38.4	µg/m3	10	12/26/2018 02:19 PM
1,2-Dichlorobenzene	ND		30.1	µg/m3	10	12/26/2018 02:19 PM
1,2-Dichloroethane	ND		20.2	µg/m3	10	12/26/2018 02:19 PM
1,2-Dichloropropane	ND		23.1	µg/m3	10	12/26/2018 02:19 PM
1,3,5-Trimethylbenzene	1,230	J	1,230	µg/m3	500	12/27/2018 12:56 AM
1,3-Butadiene	ND		11.1	µg/m3	10	12/26/2018 02:19 PM
1,3-Dichlorobenzene	ND		30.1	µg/m3	10	12/26/2018 02:19 PM
1,4-Dichlorobenzene	ND		30.1	µg/m3	10	12/26/2018 02:19 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: 1812729

Sample ID: SC-V-VP-06

Lab ID: 1812729-06

Collection Date: 12/19/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		36.0	µg/m3	10	12/26/2018 02:19 PM
2-Butanone	ND		14.7	µg/m3	10	12/26/2018 02:19 PM
2-Hexanone	ND		41.0	µg/m3	10	12/26/2018 02:19 PM
2-Propanol	ND		24.6	µg/m3	10	12/26/2018 02:19 PM
4-Ethyltoluene	927		24.6	µg/m3	10	12/26/2018 02:19 PM
4-Methyl-2-pentanone	ND		41.0	µg/m3	10	12/26/2018 02:19 PM
Acetone	ND		23.8	µg/m3	10	12/26/2018 02:19 PM
Benzene	186		16.0	µg/m3	10	12/26/2018 02:19 PM
Benzyl chloride	73.5		25.9	µg/m3	10	12/26/2018 02:19 PM
Bromodichloromethane	ND		33.5	µg/m3	10	12/26/2018 02:19 PM
Bromoform	ND		51.7	µg/m3	10	12/26/2018 02:19 PM
Bromomethane	ND		19.4	µg/m3	10	12/26/2018 02:19 PM
Carbon disulfide	24.6		15.6	µg/m3	10	12/26/2018 02:19 PM
Carbon tetrachloride	ND		31.5	µg/m3	10	12/26/2018 02:19 PM
Chlorobenzene	ND		23.0	µg/m3	10	12/26/2018 02:19 PM
Chloroethane	29.0		13.2	µg/m3	10	12/26/2018 02:19 PM
Chloroform	ND		9.76	µg/m3	10	12/26/2018 02:19 PM
Chloromethane	ND		10.3	µg/m3	10	12/26/2018 02:19 PM
cis-1,2-Dichloroethene	140		19.8	µg/m3	10	12/26/2018 02:19 PM
cis-1,3-Dichloropropene	ND		22.7	µg/m3	10	12/26/2018 02:19 PM
Cumene	851		24.6	µg/m3	10	12/26/2018 02:19 PM
Cyclohexane	32,600		861	µg/m3	500	12/27/2018 12:56 AM
Dibromochloromethane	ND		42.6	µg/m3	10	12/26/2018 02:19 PM
Dichlorodifluoromethane	ND		24.7	µg/m3	10	12/26/2018 02:19 PM
Ethyl acetate	ND		18.0	µg/m3	10	12/26/2018 02:19 PM
Ethylbenzene	1,070		21.7	µg/m3	10	12/26/2018 02:19 PM
Freon 113	ND		38.3	µg/m3	10	12/26/2018 02:19 PM
Freon 114	ND		35.0	µg/m3	10	12/26/2018 02:19 PM
Heptane	63,900		2,050	µg/m3	1000	12/27/2018 03:26 PM
Hexachlorobutadiene	ND		53.3	µg/m3	10	12/26/2018 02:19 PM
Hexane	52,600		1,760	µg/m3	1000	12/27/2018 03:26 PM
m,p-Xylene	543		21.7	µg/m3	10	12/26/2018 02:19 PM
Methylene chloride	ND		34.7	µg/m3	10	12/26/2018 02:19 PM
MTBE	ND		18.0	µg/m3	10	12/26/2018 02:19 PM
Naphthalene	ND		10.5	µg/m3	10	12/26/2018 02:19 PM
o-Xylene	460		21.7	µg/m3	10	12/26/2018 02:19 PM
Propene	ND		8.61	µg/m3	10	12/26/2018 02:19 PM
Styrene	ND		21.3	µg/m3	10	12/26/2018 02:19 PM
Tetrachloroethene	145		33.9	µg/m3	10	12/26/2018 02:19 PM
Tetrahydrofuran	ND		14.7	µg/m3	10	12/26/2018 02:19 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: 1812729

Sample ID: SC-V-VP-06

Lab ID: 1812729-06

Collection Date: 12/19/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	36.6		18.8	µg/m3	10	12/26/2018 02:19 PM
trans-1,2-Dichloroethene	41.2		19.8	µg/m3	10	12/26/2018 02:19 PM
trans-1,3-Dichloropropene	ND		22.7	µg/m3	10	12/26/2018 02:19 PM
Trichloroethene	275		10.7	µg/m3	10	12/26/2018 02:19 PM
Trichlorofluoromethane	ND		28.1	µg/m3	10	12/26/2018 02:19 PM
Vinyl acetate	ND		17.6	µg/m3	10	12/26/2018 02:19 PM
Vinyl chloride	ND		12.8	µg/m3	10	12/26/2018 02:19 PM
Surr: Bromofluorobenzene	95.3		60-140	%REC	10	12/26/2018 02:19 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: 1812729

Sample ID: SC-V-VP-07

Lab ID: 1812729-07

Collection Date: 12/19/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			ETO-15			Analyst: MRJ
1,1,1-Trichloroethane	ND		20	ppbv	40	12/26/2018 05:29 PM
1,1,2,2-Tetrachloroethane	ND		20	ppbv	40	12/26/2018 05:29 PM
1,1,2-Trichloroethane	ND		20	ppbv	40	12/26/2018 05:29 PM
1,1-Dichloroethane	ND		20	ppbv	40	12/26/2018 05:29 PM
1,1-Dichloroethene	91		20	ppbv	40	12/26/2018 05:29 PM
1,2,4-Trichlorobenzene	ND		20	ppbv	40	12/26/2018 05:29 PM
1,2,4-Trimethylbenzene	ND		20	ppbv	40	12/26/2018 05:29 PM
1,2-Dibromoethane	ND		20	ppbv	40	12/26/2018 05:29 PM
1,2-Dichlorobenzene	ND		20	ppbv	40	12/26/2018 05:29 PM
1,2-Dichloroethane	ND		20	ppbv	40	12/26/2018 05:29 PM
1,2-Dichloropropane	ND		20	ppbv	40	12/26/2018 05:29 PM
1,3,5-Trimethylbenzene	ND		20	ppbv	40	12/26/2018 05:29 PM
1,3-Butadiene	ND		20	ppbv	40	12/26/2018 05:29 PM
1,3-Dichlorobenzene	ND		20	ppbv	40	12/26/2018 05:29 PM
1,4-Dichlorobenzene	ND		20	ppbv	40	12/26/2018 05:29 PM
1,4-Dioxane	ND		40	ppbv	40	12/26/2018 05:29 PM
2-Butanone	ND		20	ppbv	40	12/26/2018 05:29 PM
2-Hexanone	ND		40	ppbv	40	12/26/2018 05:29 PM
2-Propanol	ND		40	ppbv	40	12/26/2018 05:29 PM
4-Ethyltoluene	ND		20	ppbv	40	12/26/2018 05:29 PM
4-Methyl-2-pentanone	ND		40	ppbv	40	12/26/2018 05:29 PM
Acetone	ND		40	ppbv	40	12/26/2018 05:29 PM
Benzene	ND		20	ppbv	40	12/26/2018 05:29 PM
Benzyl chloride	ND		20	ppbv	40	12/26/2018 05:29 PM
Bromodichloromethane	ND		20	ppbv	40	12/26/2018 05:29 PM
Bromoform	ND		20	ppbv	40	12/26/2018 05:29 PM
Bromomethane	ND		20	ppbv	40	12/26/2018 05:29 PM
Carbon disulfide	ND		20	ppbv	40	12/26/2018 05:29 PM
Carbon tetrachloride	ND		20	ppbv	40	12/26/2018 05:29 PM
Chlorobenzene	ND		20	ppbv	40	12/26/2018 05:29 PM
Chloroethane	ND		20	ppbv	40	12/26/2018 05:29 PM
Chloroform	ND		8.0	ppbv	40	12/26/2018 05:29 PM
Chloromethane	ND		20	ppbv	40	12/26/2018 05:29 PM
cis-1,2-Dichloroethene	24,000		1,000	ppbv	2000	12/27/2018 08:55 AM
cis-1,3-Dichloropropene	ND		20	ppbv	40	12/26/2018 05:29 PM
Cumene	ND		20	ppbv	40	12/26/2018 05:29 PM
Cyclohexane	1,100		250	ppbv	500	12/27/2018 01:41 AM
Dibromochloromethane	ND		20	ppbv	40	12/26/2018 05:29 PM
Dichlorodifluoromethane	ND		20	ppbv	40	12/26/2018 05:29 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: 1812729

Sample ID: SC-V-VP-07

Lab ID: 1812729-07

Collection Date: 12/19/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		20	ppbv	40	12/26/2018 05:29 PM
Ethylbenzene	ND		20	ppbv	40	12/26/2018 05:29 PM
Freon 113	ND		20	ppbv	40	12/26/2018 05:29 PM
Freon 114	ND		20	ppbv	40	12/26/2018 05:29 PM
Heptane	110		20	ppbv	40	12/26/2018 05:29 PM
Hexachlorobutadiene	ND		20	ppbv	40	12/26/2018 05:29 PM
Hexane	370		20	ppbv	40	12/26/2018 05:29 PM
m,p-Xylene	ND		20	ppbv	40	12/26/2018 05:29 PM
Methylene chloride	ND		40	ppbv	40	12/26/2018 05:29 PM
MTBE	ND		20	ppbv	40	12/26/2018 05:29 PM
Naphthalene	ND		8.0	ppbv	40	12/26/2018 05:29 PM
o-Xylene	ND		20	ppbv	40	12/26/2018 05:29 PM
Propene	ND		20	ppbv	40	12/26/2018 05:29 PM
Styrene	ND		20	ppbv	40	12/26/2018 05:29 PM
Tetrachloroethene	110		20	ppbv	40	12/26/2018 05:29 PM
Tetrahydrofuran	ND		20	ppbv	40	12/26/2018 05:29 PM
Toluene	ND		20	ppbv	40	12/26/2018 05:29 PM
trans-1,2-Dichloroethene	510		20	ppbv	40	12/26/2018 05:29 PM
trans-1,3-Dichloropropene	ND		20	ppbv	40	12/26/2018 05:29 PM
Trichloroethene	2,100		100	ppbv	500	12/27/2018 01:41 AM
Trichlorofluoromethane	ND		20	ppbv	40	12/26/2018 05:29 PM
Vinyl acetate	ND		20	ppbv	40	12/26/2018 05:29 PM
Vinyl chloride	7,900		250	ppbv	500	12/27/2018 01:41 AM
Surr: Bromofluorobenzene	88.9		60-140	%REC	40	12/26/2018 05:29 PM
TO-15 BY GC/MS			ETO-15			Analyst: MRJ
1,1,1-Trichloroethane	ND		109	µg/m3	40	12/26/2018 05:29 PM
1,1,2,2-Tetrachloroethane	ND		137	µg/m3	40	12/26/2018 05:29 PM
1,1,2-Trichloroethane	ND		109	µg/m3	40	12/26/2018 05:29 PM
1,1-Dichloroethane	ND		80.9	µg/m3	40	12/26/2018 05:29 PM
1,1-Dichloroethene	360		79.3	µg/m3	40	12/26/2018 05:29 PM
1,2,4-Trichlorobenzene	ND		148	µg/m3	40	12/26/2018 05:29 PM
1,2,4-Trimethylbenzene	ND		98.3	µg/m3	40	12/26/2018 05:29 PM
1,2-Dibromoethane	ND		154	µg/m3	40	12/26/2018 05:29 PM
1,2-Dichlorobenzene	ND		120	µg/m3	40	12/26/2018 05:29 PM
1,2-Dichloroethane	ND		80.9	µg/m3	40	12/26/2018 05:29 PM
1,2-Dichloropropane	ND		92.4	µg/m3	40	12/26/2018 05:29 PM
1,3,5-Trimethylbenzene	ND		98.3	µg/m3	40	12/26/2018 05:29 PM
1,3-Butadiene	ND		44.2	µg/m3	40	12/26/2018 05:29 PM
1,3-Dichlorobenzene	ND		120	µg/m3	40	12/26/2018 05:29 PM
1,4-Dichlorobenzene	ND		120	µg/m3	40	12/26/2018 05:29 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Sample ID: SC-V-VP-07

Collection Date: 12/19/2018

Work Order: 1812729

Lab ID: 1812729-07

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		144	µg/m3	40	12/26/2018 05:29 PM
2-Butanone	ND		59.0	µg/m3	40	12/26/2018 05:29 PM
2-Hexanone	ND		164	µg/m3	40	12/26/2018 05:29 PM
2-Propanol	ND		98.3	µg/m3	40	12/26/2018 05:29 PM
4-Ethyltoluene	ND		98.3	µg/m3	40	12/26/2018 05:29 PM
4-Methyl-2-pentanone	ND		164	µg/m3	40	12/26/2018 05:29 PM
Acetone	ND		95.0	µg/m3	40	12/26/2018 05:29 PM
Benzene	ND		63.9	µg/m3	40	12/26/2018 05:29 PM
Benzyl chloride	ND		104	µg/m3	40	12/26/2018 05:29 PM
Bromodichloromethane	ND		134	µg/m3	40	12/26/2018 05:29 PM
Bromoform	ND		207	µg/m3	40	12/26/2018 05:29 PM
Bromomethane	ND		77.7	µg/m3	40	12/26/2018 05:29 PM
Carbon disulfide	ND		62.3	µg/m3	40	12/26/2018 05:29 PM
Carbon tetrachloride	ND		126	µg/m3	40	12/26/2018 05:29 PM
Chlorobenzene	ND		92.1	µg/m3	40	12/26/2018 05:29 PM
Chloroethane	ND		52.8	µg/m3	40	12/26/2018 05:29 PM
Chloroform	ND		39.1	µg/m3	40	12/26/2018 05:29 PM
Chloromethane	ND		41.3	µg/m3	40	12/26/2018 05:29 PM
cis-1,2-Dichloroethene	93,300		3,960	µg/m3	2000	12/27/2018 08:55 AM
cis-1,3-Dichloropropene	ND		90.8	µg/m3	40	12/26/2018 05:29 PM
Cumene	ND		98.3	µg/m3	40	12/26/2018 05:29 PM
Cyclohexane	3,790		861	µg/m3	500	12/27/2018 01:41 AM
Dibromochloromethane	ND		170	µg/m3	40	12/26/2018 05:29 PM
Dichlorodifluoromethane	ND		98.9	µg/m3	40	12/26/2018 05:29 PM
Ethyl acetate	ND		72.1	µg/m3	40	12/26/2018 05:29 PM
Ethylbenzene	ND		86.8	µg/m3	40	12/26/2018 05:29 PM
Freon 113	ND		153	µg/m3	40	12/26/2018 05:29 PM
Freon 114	ND		140	µg/m3	40	12/26/2018 05:29 PM
Heptane	454		82.0	µg/m3	40	12/26/2018 05:29 PM
Hexachlorobutadiene	ND		213	µg/m3	40	12/26/2018 05:29 PM
Hexane	1,290		70.5	µg/m3	40	12/26/2018 05:29 PM
m,p-Xylene	ND		86.8	µg/m3	40	12/26/2018 05:29 PM
Methylene chloride	ND		139	µg/m3	40	12/26/2018 05:29 PM
MTBE	ND		72.1	µg/m3	40	12/26/2018 05:29 PM
Naphthalene	ND		41.9	µg/m3	40	12/26/2018 05:29 PM
o-Xylene	ND		86.8	µg/m3	40	12/26/2018 05:29 PM
Propene	ND		34.4	µg/m3	40	12/26/2018 05:29 PM
Styrene	ND		85.2	µg/m3	40	12/26/2018 05:29 PM
Tetrachloroethene	776		136	µg/m3	40	12/26/2018 05:29 PM
Tetrahydrofuran	ND		59.0	µg/m3	40	12/26/2018 05:29 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: 1812729

Sample ID: SC-V-VP-07

Lab ID: 1812729-07

Collection Date: 12/19/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	ND		75.4	µg/m3	40	12/26/2018 05:29 PM
trans-1,2-Dichloroethene	2,030		79.3	µg/m3	40	12/26/2018 05:29 PM
trans-1,3-Dichloropropene	ND		90.8	µg/m3	40	12/26/2018 05:29 PM
Trichloroethene	11,300		537	µg/m3	500	12/27/2018 01:41 AM
Trichlorofluoromethane	ND		112	µg/m3	40	12/26/2018 05:29 PM
Vinyl acetate	ND		70.4	µg/m3	40	12/26/2018 05:29 PM
Vinyl chloride	20,100		639	µg/m3	500	12/27/2018 01:41 AM
Surr: Bromofluorobenzene	88.9		60-140	%REC	40	12/26/2018 05:29 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Sample ID: SC-V-VP-08

Collection Date: 12/19/2018

Work Order: 1812729

Lab ID: 1812729-08

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			ETO-15			Analyst: MRJ
1,1,1-Trichloroethane	ND		20	ppbv	40	12/26/2018 06:14 PM
1,1,2,2-Tetrachloroethane	ND		20	ppbv	40	12/26/2018 06:14 PM
1,1,2-Trichloroethane	ND		20	ppbv	40	12/26/2018 06:14 PM
1,1-Dichloroethane	ND		20	ppbv	40	12/26/2018 06:14 PM
1,1-Dichloroethene	61		20	ppbv	40	12/26/2018 06:14 PM
1,2,4-Trichlorobenzene	ND		20	ppbv	40	12/26/2018 06:14 PM
1,2,4-Trimethylbenzene	ND		20	ppbv	40	12/26/2018 06:14 PM
1,2-Dibromoethane	ND		20	ppbv	40	12/26/2018 06:14 PM
1,2-Dichlorobenzene	ND		20	ppbv	40	12/26/2018 06:14 PM
1,2-Dichloroethane	ND		20	ppbv	40	12/26/2018 06:14 PM
1,2-Dichloropropane	ND		20	ppbv	40	12/26/2018 06:14 PM
1,3,5-Trimethylbenzene	ND		20	ppbv	40	12/26/2018 06:14 PM
1,3-Butadiene	ND		20	ppbv	40	12/26/2018 06:14 PM
1,3-Dichlorobenzene	ND		20	ppbv	40	12/26/2018 06:14 PM
1,4-Dichlorobenzene	ND		20	ppbv	40	12/26/2018 06:14 PM
1,4-Dioxane	ND		40	ppbv	40	12/26/2018 06:14 PM
2-Butanone	31		20	ppbv	40	12/26/2018 06:14 PM
2-Hexanone	ND		40	ppbv	40	12/26/2018 06:14 PM
2-Propanol	ND		40	ppbv	40	12/26/2018 06:14 PM
4-Ethyltoluene	ND		20	ppbv	40	12/26/2018 06:14 PM
4-Methyl-2-pentanone	ND		40	ppbv	40	12/26/2018 06:14 PM
Acetone	ND		40	ppbv	40	12/26/2018 06:14 PM
Benzene	ND		20	ppbv	40	12/26/2018 06:14 PM
Benzyl chloride	ND		20	ppbv	40	12/26/2018 06:14 PM
Bromodichloromethane	ND		20	ppbv	40	12/26/2018 06:14 PM
Bromoform	ND		20	ppbv	40	12/26/2018 06:14 PM
Bromomethane	ND		20	ppbv	40	12/26/2018 06:14 PM
Carbon disulfide	ND		20	ppbv	40	12/26/2018 06:14 PM
Carbon tetrachloride	ND		20	ppbv	40	12/26/2018 06:14 PM
Chlorobenzene	ND		20	ppbv	40	12/26/2018 06:14 PM
Chloroethane	ND		20	ppbv	40	12/26/2018 06:14 PM
Chloroform	18		8.0	ppbv	40	12/26/2018 06:14 PM
Chloromethane	ND		20	ppbv	40	12/26/2018 06:14 PM
cis-1,2-Dichloroethene	1,400		500	ppbv	1000	12/27/2018 02:26 AM
cis-1,3-Dichloropropene	ND		20	ppbv	40	12/26/2018 06:14 PM
Cumene	ND		20	ppbv	40	12/26/2018 06:14 PM
Cyclohexane	ND		20	ppbv	40	12/26/2018 06:14 PM
Dibromochloromethane	ND		20	ppbv	40	12/26/2018 06:14 PM
Dichlorodifluoromethane	ND		20	ppbv	40	12/26/2018 06:14 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Sample ID: SC-V-VP-08

Collection Date: 12/19/2018

Work Order: 1812729

Lab ID: 1812729-08

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		20	ppbv	40	12/26/2018 06:14 PM
Ethylbenzene	ND		20	ppbv	40	12/26/2018 06:14 PM
Freon 113	ND		20	ppbv	40	12/26/2018 06:14 PM
Freon 114	ND		20	ppbv	40	12/26/2018 06:14 PM
Heptane	ND		20	ppbv	40	12/26/2018 06:14 PM
Hexachlorobutadiene	ND		20	ppbv	40	12/26/2018 06:14 PM
Hexane	ND		20	ppbv	40	12/26/2018 06:14 PM
m,p-Xylene	ND		20	ppbv	40	12/26/2018 06:14 PM
Methylene chloride	ND		40	ppbv	40	12/26/2018 06:14 PM
MTBE	ND		20	ppbv	40	12/26/2018 06:14 PM
Naphthalene	ND		8.0	ppbv	40	12/26/2018 06:14 PM
o-Xylene	ND		20	ppbv	40	12/26/2018 06:14 PM
Propene	ND		20	ppbv	40	12/26/2018 06:14 PM
Styrene	ND		20	ppbv	40	12/26/2018 06:14 PM
Tetrachloroethene	24,000		500	ppbv	1000	12/27/2018 02:26 AM
Tetrahydrofuran	ND		20	ppbv	40	12/26/2018 06:14 PM
Toluene	ND		20	ppbv	40	12/26/2018 06:14 PM
trans-1,2-Dichloroethene	180		20	ppbv	40	12/26/2018 06:14 PM
trans-1,3-Dichloropropene	ND		20	ppbv	40	12/26/2018 06:14 PM
Trichloroethene	950		8.0	ppbv	40	12/26/2018 06:14 PM
Trichlorofluoromethane	ND		20	ppbv	40	12/26/2018 06:14 PM
Vinyl acetate	ND		20	ppbv	40	12/26/2018 06:14 PM
Vinyl chloride	130		20	ppbv	40	12/26/2018 06:14 PM
Surr: Bromofluorobenzene	91.5		60-140	%REC	40	12/26/2018 06:14 PM
TO-15 BY GC/MS			ETO-15			Analyst: MRJ
1,1,1-Trichloroethane	ND		109	µg/m3	40	12/26/2018 06:14 PM
1,1,2,2-Tetrachloroethane	ND		137	µg/m3	40	12/26/2018 06:14 PM
1,1,2-Trichloroethane	ND		109	µg/m3	40	12/26/2018 06:14 PM
1,1-Dichloroethane	ND		80.9	µg/m3	40	12/26/2018 06:14 PM
1,1-Dichloroethene	241		79.3	µg/m3	40	12/26/2018 06:14 PM
1,2,4-Trichlorobenzene	ND		148	µg/m3	40	12/26/2018 06:14 PM
1,2,4-Trimethylbenzene	ND		98.3	µg/m3	40	12/26/2018 06:14 PM
1,2-Dibromoethane	ND		154	µg/m3	40	12/26/2018 06:14 PM
1,2-Dichlorobenzene	ND		120	µg/m3	40	12/26/2018 06:14 PM
1,2-Dichloroethane	ND		80.9	µg/m3	40	12/26/2018 06:14 PM
1,2-Dichloropropane	ND		92.4	µg/m3	40	12/26/2018 06:14 PM
1,3,5-Trimethylbenzene	ND		98.3	µg/m3	40	12/26/2018 06:14 PM
1,3-Butadiene	ND		44.2	µg/m3	40	12/26/2018 06:14 PM
1,3-Dichlorobenzene	ND		120	µg/m3	40	12/26/2018 06:14 PM
1,4-Dichlorobenzene	ND		120	µg/m3	40	12/26/2018 06:14 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: 1812729

Sample ID: SC-V-VP-08

Lab ID: 1812729-08

Collection Date: 12/19/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		144	µg/m3	40	12/26/2018 06:14 PM
2-Butanone	92.0		59.0	µg/m3	40	12/26/2018 06:14 PM
2-Hexanone	ND		164	µg/m3	40	12/26/2018 06:14 PM
2-Propanol	ND		98.3	µg/m3	40	12/26/2018 06:14 PM
4-Ethyltoluene	ND		98.3	µg/m3	40	12/26/2018 06:14 PM
4-Methyl-2-pentanone	ND		164	µg/m3	40	12/26/2018 06:14 PM
Acetone	ND		95.0	µg/m3	40	12/26/2018 06:14 PM
Benzene	ND		63.9	µg/m3	40	12/26/2018 06:14 PM
Benzyl chloride	ND		104	µg/m3	40	12/26/2018 06:14 PM
Bromodichloromethane	ND		134	µg/m3	40	12/26/2018 06:14 PM
Bromoform	ND		207	µg/m3	40	12/26/2018 06:14 PM
Bromomethane	ND		77.7	µg/m3	40	12/26/2018 06:14 PM
Carbon disulfide	ND		62.3	µg/m3	40	12/26/2018 06:14 PM
Carbon tetrachloride	ND		126	µg/m3	40	12/26/2018 06:14 PM
Chlorobenzene	ND		92.1	µg/m3	40	12/26/2018 06:14 PM
Chloroethane	ND		52.8	µg/m3	40	12/26/2018 06:14 PM
Chloroform	87.9		39.1	µg/m3	40	12/26/2018 06:14 PM
Chloromethane	ND		41.3	µg/m3	40	12/26/2018 06:14 PM
cis-1,2-Dichloroethene	5,670		1,980	µg/m3	1000	12/27/2018 02:26 AM
cis-1,3-Dichloropropene	ND		90.8	µg/m3	40	12/26/2018 06:14 PM
Cumene	ND		98.3	µg/m3	40	12/26/2018 06:14 PM
Cyclohexane	ND		68.8	µg/m3	40	12/26/2018 06:14 PM
Dibromochloromethane	ND		170	µg/m3	40	12/26/2018 06:14 PM
Dichlorodifluoromethane	ND		98.9	µg/m3	40	12/26/2018 06:14 PM
Ethyl acetate	ND		72.1	µg/m3	40	12/26/2018 06:14 PM
Ethylbenzene	ND		86.8	µg/m3	40	12/26/2018 06:14 PM
Freon 113	ND		153	µg/m3	40	12/26/2018 06:14 PM
Freon 114	ND		140	µg/m3	40	12/26/2018 06:14 PM
Heptane	ND		82.0	µg/m3	40	12/26/2018 06:14 PM
Hexachlorobutadiene	ND		213	µg/m3	40	12/26/2018 06:14 PM
Hexane	ND		70.5	µg/m3	40	12/26/2018 06:14 PM
m,p-Xylene	ND		86.8	µg/m3	40	12/26/2018 06:14 PM
Methylene chloride	ND		139	µg/m3	40	12/26/2018 06:14 PM
MTBE	ND		72.1	µg/m3	40	12/26/2018 06:14 PM
Naphthalene	ND		41.9	µg/m3	40	12/26/2018 06:14 PM
o-Xylene	ND		86.8	µg/m3	40	12/26/2018 06:14 PM
Propene	ND		34.4	µg/m3	40	12/26/2018 06:14 PM
Styrene	ND		85.2	µg/m3	40	12/26/2018 06:14 PM
Tetrachloroethene	160,000		3,390	µg/m3	1000	12/27/2018 02:26 AM
Tetrahydrofuran	ND		59.0	µg/m3	40	12/26/2018 06:14 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: 1812729

Sample ID: SC-V-VP-08

Lab ID: 1812729-08

Collection Date: 12/19/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	ND		75.4	µg/m3	40	12/26/2018 06:14 PM
trans-1,2-Dichloroethene	733		79.3	µg/m3	40	12/26/2018 06:14 PM
trans-1,3-Dichloropropene	ND		90.8	µg/m3	40	12/26/2018 06:14 PM
Trichloroethene	5,100		43.0	µg/m3	40	12/26/2018 06:14 PM
Trichlorofluoromethane	ND		112	µg/m3	40	12/26/2018 06:14 PM
Vinyl acetate	ND		70.4	µg/m3	40	12/26/2018 06:14 PM
Vinyl chloride	337		51.1	µg/m3	40	12/26/2018 06:14 PM
Surr: Bromofluorobenzene	91.5		60-140	%REC	40	12/26/2018 06:14 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: 1812729

Sample ID: SC-V-VP-09

Lab ID: 1812729-09

Collection Date: 12/19/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			ETO-15			Analyst: MRJ
1,1,1-Trichloroethane	ND		5.0	ppbv	10	12/26/2018 01:34 PM
1,1,2,2-Tetrachloroethane	ND		5.0	ppbv	10	12/26/2018 01:34 PM
1,1,2-Trichloroethane	ND		5.0	ppbv	10	12/26/2018 01:34 PM
1,1-Dichloroethane	ND		5.0	ppbv	10	12/26/2018 01:34 PM
1,1-Dichloroethene	ND		5.0	ppbv	10	12/26/2018 01:34 PM
1,2,4-Trichlorobenzene	ND		5.0	ppbv	10	12/26/2018 01:34 PM
1,2,4-Trimethylbenzene	ND		5.0	ppbv	10	12/26/2018 01:34 PM
1,2-Dibromoethane	ND		5.0	ppbv	10	12/26/2018 01:34 PM
1,2-Dichlorobenzene	ND		5.0	ppbv	10	12/26/2018 01:34 PM
1,2-Dichloroethane	ND		5.0	ppbv	10	12/26/2018 01:34 PM
1,2-Dichloropropane	ND		5.0	ppbv	10	12/26/2018 01:34 PM
1,3,5-Trimethylbenzene	ND		5.0	ppbv	10	12/26/2018 01:34 PM
1,3-Butadiene	ND		5.0	ppbv	10	12/26/2018 01:34 PM
1,3-Dichlorobenzene	ND		5.0	ppbv	10	12/26/2018 01:34 PM
1,4-Dichlorobenzene	ND		5.0	ppbv	10	12/26/2018 01:34 PM
1,4-Dioxane	ND		10	ppbv	10	12/26/2018 01:34 PM
2-Butanone	ND		5.0	ppbv	10	12/26/2018 01:34 PM
2-Hexanone	ND		10	ppbv	10	12/26/2018 01:34 PM
2-Propanol	ND		10	ppbv	10	12/26/2018 01:34 PM
4-Ethyltoluene	ND		5.0	ppbv	10	12/26/2018 01:34 PM
4-Methyl-2-pentanone	ND		10	ppbv	10	12/26/2018 01:34 PM
Acetone	24		10	ppbv	10	12/26/2018 01:34 PM
Benzene	5.6		5.0	ppbv	10	12/26/2018 01:34 PM
Benzyl chloride	ND		5.0	ppbv	10	12/26/2018 01:34 PM
Bromodichloromethane	ND		5.0	ppbv	10	12/26/2018 01:34 PM
Bromoform	ND		5.0	ppbv	10	12/26/2018 01:34 PM
Bromomethane	ND		5.0	ppbv	10	12/26/2018 01:34 PM
Carbon disulfide	ND		5.0	ppbv	10	12/26/2018 01:34 PM
Carbon tetrachloride	ND		5.0	ppbv	10	12/26/2018 01:34 PM
Chlorobenzene	ND		5.0	ppbv	10	12/26/2018 01:34 PM
Chloroethane	ND		5.0	ppbv	10	12/26/2018 01:34 PM
Chloroform	ND		2.0	ppbv	10	12/26/2018 01:34 PM
Chloromethane	ND		5.0	ppbv	10	12/26/2018 01:34 PM
cis-1,2-Dichloroethene	ND		5.0	ppbv	10	12/26/2018 01:34 PM
cis-1,3-Dichloropropene	ND		5.0	ppbv	10	12/26/2018 01:34 PM
Cumene	ND		5.0	ppbv	10	12/26/2018 01:34 PM
Cyclohexane	ND		5.0	ppbv	10	12/26/2018 01:34 PM
Dibromochloromethane	ND		5.0	ppbv	10	12/26/2018 01:34 PM
Dichlorodifluoromethane	ND		5.0	ppbv	10	12/26/2018 01:34 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: 1812729

Sample ID: SC-V-VP-09

Lab ID: 1812729-09

Collection Date: 12/19/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		5.0	ppbv	10	12/26/2018 01:34 PM
Ethylbenzene	ND		5.0	ppbv	10	12/26/2018 01:34 PM
Freon 113	ND		5.0	ppbv	10	12/26/2018 01:34 PM
Freon 114	ND		5.0	ppbv	10	12/26/2018 01:34 PM
Heptane	ND		5.0	ppbv	10	12/26/2018 01:34 PM
Hexachlorobutadiene	ND		5.0	ppbv	10	12/26/2018 01:34 PM
Hexane	ND		5.0	ppbv	10	12/26/2018 01:34 PM
m,p-Xylene	5.3		5.0	ppbv	10	12/26/2018 01:34 PM
Methylene chloride	ND		10	ppbv	10	12/26/2018 01:34 PM
MTBE	ND		5.0	ppbv	10	12/26/2018 01:34 PM
Naphthalene	ND		2.0	ppbv	10	12/26/2018 01:34 PM
o-Xylene	ND		5.0	ppbv	10	12/26/2018 01:34 PM
Propene	ND		5.0	ppbv	10	12/26/2018 01:34 PM
Styrene	ND		5.0	ppbv	10	12/26/2018 01:34 PM
Tetrachloroethene	2,500		250	ppbv	500	12/26/2018 11:26 PM
Tetrahydrofuran	ND		5.0	ppbv	10	12/26/2018 01:34 PM
Toluene	8.1		5.0	ppbv	10	12/26/2018 01:34 PM
trans-1,2-Dichloroethene	ND		5.0	ppbv	10	12/26/2018 01:34 PM
trans-1,3-Dichloropropene	ND		5.0	ppbv	10	12/26/2018 01:34 PM
Trichloroethene	20		2.0	ppbv	10	12/26/2018 01:34 PM
Trichlorofluoromethane	ND		5.0	ppbv	10	12/26/2018 01:34 PM
Vinyl acetate	ND		5.0	ppbv	10	12/26/2018 01:34 PM
Vinyl chloride	ND		5.0	ppbv	10	12/26/2018 01:34 PM
<i>Surr: Bromofluorobenzene</i>	97.3		60-140	%REC	10	12/26/2018 01:34 PM
TO-15 BY GC/MS			ETO-15			Analyst: MRJ
1,1,1-Trichloroethane	ND		27.3	µg/m3	10	12/26/2018 01:34 PM
1,1,2,2-Tetrachloroethane	ND		34.3	µg/m3	10	12/26/2018 01:34 PM
1,1,2-Trichloroethane	ND		27.3	µg/m3	10	12/26/2018 01:34 PM
1,1-Dichloroethane	ND		20.2	µg/m3	10	12/26/2018 01:34 PM
1,1-Dichloroethene	ND		19.8	µg/m3	10	12/26/2018 01:34 PM
1,2,4-Trichlorobenzene	ND		37.1	µg/m3	10	12/26/2018 01:34 PM
1,2,4-Trimethylbenzene	ND		24.6	µg/m3	10	12/26/2018 01:34 PM
1,2-Dibromoethane	ND		38.4	µg/m3	10	12/26/2018 01:34 PM
1,2-Dichlorobenzene	ND		30.1	µg/m3	10	12/26/2018 01:34 PM
1,2-Dichloroethane	ND		20.2	µg/m3	10	12/26/2018 01:34 PM
1,2-Dichloropropane	ND		23.1	µg/m3	10	12/26/2018 01:34 PM
1,3,5-Trimethylbenzene	ND		24.6	µg/m3	10	12/26/2018 01:34 PM
1,3-Butadiene	ND		11.1	µg/m3	10	12/26/2018 01:34 PM
1,3-Dichlorobenzene	ND		30.1	µg/m3	10	12/26/2018 01:34 PM
1,4-Dichlorobenzene	ND		30.1	µg/m3	10	12/26/2018 01:34 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: 1812729

Sample ID: SC-V-VP-09

Lab ID: 1812729-09

Collection Date: 12/19/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		36.0	µg/m3	10	12/26/2018 01:34 PM
2-Butanone	ND		14.7	µg/m3	10	12/26/2018 01:34 PM
2-Hexanone	ND		41.0	µg/m3	10	12/26/2018 01:34 PM
2-Propanol	ND		24.6	µg/m3	10	12/26/2018 01:34 PM
4-Ethyltoluene	ND		24.6	µg/m3	10	12/26/2018 01:34 PM
4-Methyl-2-pentanone	ND		41.0	µg/m3	10	12/26/2018 01:34 PM
Acetone	57.5		23.8	µg/m3	10	12/26/2018 01:34 PM
Benzene	17.9		16.0	µg/m3	10	12/26/2018 01:34 PM
Benzyl chloride	ND		25.9	µg/m3	10	12/26/2018 01:34 PM
Bromodichloromethane	ND		33.5	µg/m3	10	12/26/2018 01:34 PM
Bromoform	ND		51.7	µg/m3	10	12/26/2018 01:34 PM
Bromomethane	ND		19.4	µg/m3	10	12/26/2018 01:34 PM
Carbon disulfide	ND		15.6	µg/m3	10	12/26/2018 01:34 PM
Carbon tetrachloride	ND		31.5	µg/m3	10	12/26/2018 01:34 PM
Chlorobenzene	ND		23.0	µg/m3	10	12/26/2018 01:34 PM
Chloroethane	ND		13.2	µg/m3	10	12/26/2018 01:34 PM
Chloroform	ND		9.76	µg/m3	10	12/26/2018 01:34 PM
Chloromethane	ND		10.3	µg/m3	10	12/26/2018 01:34 PM
cis-1,2-Dichloroethene	ND		19.8	µg/m3	10	12/26/2018 01:34 PM
cis-1,3-Dichloropropene	ND		22.7	µg/m3	10	12/26/2018 01:34 PM
Cumene	ND		24.6	µg/m3	10	12/26/2018 01:34 PM
Cyclohexane	ND		17.2	µg/m3	10	12/26/2018 01:34 PM
Dibromochloromethane	ND		42.6	µg/m3	10	12/26/2018 01:34 PM
Dichlorodifluoromethane	ND		24.7	µg/m3	10	12/26/2018 01:34 PM
Ethyl acetate	ND		18.0	µg/m3	10	12/26/2018 01:34 PM
Ethylbenzene	ND		21.7	µg/m3	10	12/26/2018 01:34 PM
Freon 113	ND		38.3	µg/m3	10	12/26/2018 01:34 PM
Freon 114	ND		35.0	µg/m3	10	12/26/2018 01:34 PM
Heptane	ND		20.5	µg/m3	10	12/26/2018 01:34 PM
Hexachlorobutadiene	ND		53.3	µg/m3	10	12/26/2018 01:34 PM
Hexane	ND		17.6	µg/m3	10	12/26/2018 01:34 PM
m,p-Xylene	23.0		21.7	µg/m3	10	12/26/2018 01:34 PM
Methylene chloride	ND		34.7	µg/m3	10	12/26/2018 01:34 PM
MTBE	ND		18.0	µg/m3	10	12/26/2018 01:34 PM
Naphthalene	ND		10.5	µg/m3	10	12/26/2018 01:34 PM
o-Xylene	ND		21.7	µg/m3	10	12/26/2018 01:34 PM
Propene	ND		8.61	µg/m3	10	12/26/2018 01:34 PM
Styrene	ND		21.3	µg/m3	10	12/26/2018 01:34 PM
Tetrachloroethene	16,700		1,700	µg/m3	500	12/26/2018 11:26 PM
Tetrahydrofuran	ND		14.7	µg/m3	10	12/26/2018 01:34 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: 1812729

Sample ID: SC-V-VP-09

Lab ID: 1812729-09

Collection Date: 12/19/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	30.5		18.8	µg/m3	10	12/26/2018 01:34 PM
trans-1,2-Dichloroethene	ND		19.8	µg/m3	10	12/26/2018 01:34 PM
trans-1,3-Dichloropropene	ND		22.7	µg/m3	10	12/26/2018 01:34 PM
Trichloroethene	107		10.7	µg/m3	10	12/26/2018 01:34 PM
Trichlorofluoromethane	ND		28.1	µg/m3	10	12/26/2018 01:34 PM
Vinyl acetate	ND		17.6	µg/m3	10	12/26/2018 01:34 PM
Vinyl chloride	ND		12.8	µg/m3	10	12/26/2018 01:34 PM
Surr: Bromofluorobenzene	97.3		60-140	%REC	10	12/26/2018 01:34 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: 1812729

Sample ID: SC-V-VP-10

Lab ID: 1812729-10

Collection Date: 12/19/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			ETO-15		Analyst: MRJ	
1,1,1-Trichloroethane	ND		0.50	ppbv	1	12/26/2018 12:49 PM
1,1,2,2-Tetrachloroethane	ND		0.50	ppbv	1	12/26/2018 12:49 PM
1,1,2-Trichloroethane	ND		0.50	ppbv	1	12/26/2018 12:49 PM
1,1-Dichloroethane	ND		0.50	ppbv	1	12/26/2018 12:49 PM
1,1-Dichloroethene	ND		0.50	ppbv	1	12/26/2018 12:49 PM
1,2,4-Trichlorobenzene	ND		0.50	ppbv	1	12/26/2018 12:49 PM
1,2,4-Trimethylbenzene	3.2		0.50	ppbv	1	12/26/2018 12:49 PM
1,2-Dibromoethane	ND		0.50	ppbv	1	12/26/2018 12:49 PM
1,2-Dichlorobenzene	ND		0.50	ppbv	1	12/26/2018 12:49 PM
1,2-Dichloroethane	ND		0.50	ppbv	1	12/26/2018 12:49 PM
1,2-Dichloropropane	ND		0.50	ppbv	1	12/26/2018 12:49 PM
1,3,5-Trimethylbenzene	1.2		0.50	ppbv	1	12/26/2018 12:49 PM
1,3-Butadiene	ND		0.50	ppbv	1	12/26/2018 12:49 PM
1,3-Dichlorobenzene	ND		0.50	ppbv	1	12/26/2018 12:49 PM
1,4-Dichlorobenzene	ND		0.50	ppbv	1	12/26/2018 12:49 PM
1,4-Dioxane	ND		1.0	ppbv	1	12/26/2018 12:49 PM
2-Butanone	ND		0.50	ppbv	1	12/26/2018 12:49 PM
2-Hexanone	ND		1.0	ppbv	1	12/26/2018 12:49 PM
2-Propanol	ND		1.0	ppbv	1	12/26/2018 12:49 PM
4-Ethyltoluene	0.76		0.50	ppbv	1	12/26/2018 12:49 PM
4-Methyl-2-pentanone	ND		1.0	ppbv	1	12/26/2018 12:49 PM
Acetone	4.4		1.0	ppbv	1	12/26/2018 12:49 PM
Benzene	ND		0.50	ppbv	1	12/26/2018 12:49 PM
Benzyl chloride	ND		0.50	ppbv	1	12/26/2018 12:49 PM
Bromodichloromethane	ND		0.50	ppbv	1	12/26/2018 12:49 PM
Bromoform	ND		0.50	ppbv	1	12/26/2018 12:49 PM
Bromomethane	ND		0.50	ppbv	1	12/26/2018 12:49 PM
Carbon disulfide	ND		0.50	ppbv	1	12/26/2018 12:49 PM
Carbon tetrachloride	ND		0.50	ppbv	1	12/26/2018 12:49 PM
Chlorobenzene	ND		0.50	ppbv	1	12/26/2018 12:49 PM
Chloroethane	ND		0.50	ppbv	1	12/26/2018 12:49 PM
Chloroform	ND		0.20	ppbv	1	12/26/2018 12:49 PM
Chloromethane	ND		0.50	ppbv	1	12/26/2018 12:49 PM
cis-1,2-Dichloroethene	0.60		0.50	ppbv	1	12/26/2018 12:49 PM
cis-1,3-Dichloropropene	ND		0.50	ppbv	1	12/26/2018 12:49 PM
Cumene	ND		0.50	ppbv	1	12/26/2018 12:49 PM
Cyclohexane	ND		0.50	ppbv	1	12/26/2018 12:49 PM
Dibromochloromethane	ND		0.50	ppbv	1	12/26/2018 12:49 PM
Dichlorodifluoromethane	0.62		0.50	ppbv	1	12/26/2018 12:49 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: 1812729

Sample ID: SC-V-VP-10

Lab ID: 1812729-10

Collection Date: 12/19/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		0.50	ppbv	1	12/26/2018 12:49 PM
Ethylbenzene	ND		0.50	ppbv	1	12/26/2018 12:49 PM
Freon 113	ND		0.50	ppbv	1	12/26/2018 12:49 PM
Freon 114	ND		0.50	ppbv	1	12/26/2018 12:49 PM
Heptane	ND		0.50	ppbv	1	12/26/2018 12:49 PM
Hexachlorobutadiene	ND		0.50	ppbv	1	12/26/2018 12:49 PM
Hexane	ND		0.50	ppbv	1	12/26/2018 12:49 PM
m,p-Xylene	0.67		0.50	ppbv	1	12/26/2018 12:49 PM
Methylene chloride	ND		1.0	ppbv	1	12/26/2018 12:49 PM
MTBE	ND		0.50	ppbv	1	12/26/2018 12:49 PM
Naphthalene	ND		0.20	ppbv	1	12/26/2018 12:49 PM
o-Xylene	ND		0.50	ppbv	1	12/26/2018 12:49 PM
Propene	ND		0.50	ppbv	1	12/26/2018 12:49 PM
Styrene	ND		0.50	ppbv	1	12/26/2018 12:49 PM
Tetrachloroethene	6.9		0.50	ppbv	1	12/26/2018 12:49 PM
Tetrahydrofuran	ND		0.50	ppbv	1	12/26/2018 12:49 PM
Toluene	0.93		0.50	ppbv	1	12/26/2018 12:49 PM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	12/26/2018 12:49 PM
trans-1,3-Dichloropropene	ND		0.50	ppbv	1	12/26/2018 12:49 PM
Trichloroethene	1.3		0.20	ppbv	1	12/26/2018 12:49 PM
Trichlorofluoromethane	ND		0.50	ppbv	1	12/26/2018 12:49 PM
Vinyl acetate	ND		0.50	ppbv	1	12/26/2018 12:49 PM
Vinyl chloride	ND		0.50	ppbv	1	12/26/2018 12:49 PM
<i>Surr: Bromofluorobenzene</i>	98.8		60-140	%REC	1	12/26/2018 12:49 PM
TO-15 BY GC/MS			ETO-15			Analyst: MRJ
1,1,1-Trichloroethane	ND		2.73	µg/m3	1	12/26/2018 12:49 PM
1,1,2,2-Tetrachloroethane	ND		3.43	µg/m3	1	12/26/2018 12:49 PM
1,1,2-Trichloroethane	ND		2.73	µg/m3	1	12/26/2018 12:49 PM
1,1-Dichloroethane	ND		2.02	µg/m3	1	12/26/2018 12:49 PM
1,1-Dichloroethene	ND		1.98	µg/m3	1	12/26/2018 12:49 PM
1,2,4-Trichlorobenzene	ND		3.71	µg/m3	1	12/26/2018 12:49 PM
1,2,4-Trimethylbenzene	15.9		2.46	µg/m3	1	12/26/2018 12:49 PM
1,2-Dibromoethane	ND		3.84	µg/m3	1	12/26/2018 12:49 PM
1,2-Dichlorobenzene	ND		3.01	µg/m3	1	12/26/2018 12:49 PM
1,2-Dichloroethane	ND		2.02	µg/m3	1	12/26/2018 12:49 PM
1,2-Dichloropropane	ND		2.31	µg/m3	1	12/26/2018 12:49 PM
1,3,5-Trimethylbenzene	5.70		2.46	µg/m3	1	12/26/2018 12:49 PM
1,3-Butadiene	ND		1.11	µg/m3	1	12/26/2018 12:49 PM
1,3-Dichlorobenzene	ND		3.01	µg/m3	1	12/26/2018 12:49 PM
1,4-Dichlorobenzene	ND		3.01	µg/m3	1	12/26/2018 12:49 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: 1812729

Sample ID: SC-V-VP-10

Lab ID: 1812729-10

Collection Date: 12/19/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		3.60	µg/m3	1	12/26/2018 12:49 PM
2-Butanone	ND		1.47	µg/m3	1	12/26/2018 12:49 PM
2-Hexanone	ND		4.10	µg/m3	1	12/26/2018 12:49 PM
2-Propanol	ND		2.46	µg/m3	1	12/26/2018 12:49 PM
4-Ethyltoluene	3.74		2.46	µg/m3	1	12/26/2018 12:49 PM
4-Methyl-2-pentanone	ND		4.10	µg/m3	1	12/26/2018 12:49 PM
Acetone	10.5		2.38	µg/m3	1	12/26/2018 12:49 PM
Benzene	ND		1.60	µg/m3	1	12/26/2018 12:49 PM
Benzyl chloride	ND		2.59	µg/m3	1	12/26/2018 12:49 PM
Bromodichloromethane	ND		3.35	µg/m3	1	12/26/2018 12:49 PM
Bromoform	ND		5.17	µg/m3	1	12/26/2018 12:49 PM
Bromomethane	ND		1.94	µg/m3	1	12/26/2018 12:49 PM
Carbon disulfide	ND		1.56	µg/m3	1	12/26/2018 12:49 PM
Carbon tetrachloride	ND		3.15	µg/m3	1	12/26/2018 12:49 PM
Chlorobenzene	ND		2.30	µg/m3	1	12/26/2018 12:49 PM
Chloroethane	ND		1.32	µg/m3	1	12/26/2018 12:49 PM
Chloroform	ND		0.976	µg/m3	1	12/26/2018 12:49 PM
Chloromethane	ND		1.03	µg/m3	1	12/26/2018 12:49 PM
cis-1,2-Dichloroethene	2.38		1.98	µg/m3	1	12/26/2018 12:49 PM
cis-1,3-Dichloropropene	ND		2.27	µg/m3	1	12/26/2018 12:49 PM
Cumene	ND		2.46	µg/m3	1	12/26/2018 12:49 PM
Cyclohexane	ND		1.72	µg/m3	1	12/26/2018 12:49 PM
Dibromochloromethane	ND		4.26	µg/m3	1	12/26/2018 12:49 PM
Dichlorodifluoromethane	3.07		2.47	µg/m3	1	12/26/2018 12:49 PM
Ethyl acetate	ND		1.80	µg/m3	1	12/26/2018 12:49 PM
Ethylbenzene	ND		2.17	µg/m3	1	12/26/2018 12:49 PM
Freon 113	ND		3.83	µg/m3	1	12/26/2018 12:49 PM
Freon 114	ND		3.50	µg/m3	1	12/26/2018 12:49 PM
Heptane	ND		2.05	µg/m3	1	12/26/2018 12:49 PM
Hexachlorobutadiene	ND		5.33	µg/m3	1	12/26/2018 12:49 PM
Hexane	ND		1.76	µg/m3	1	12/26/2018 12:49 PM
m,p-Xylene	2.91		2.17	µg/m3	1	12/26/2018 12:49 PM
Methylene chloride	ND		3.47	µg/m3	1	12/26/2018 12:49 PM
MTBE	ND		1.80	µg/m3	1	12/26/2018 12:49 PM
Naphthalene	ND		1.05	µg/m3	1	12/26/2018 12:49 PM
o-Xylene	ND		2.17	µg/m3	1	12/26/2018 12:49 PM
Propene	ND		0.861	µg/m3	1	12/26/2018 12:49 PM
Styrene	ND		2.13	µg/m3	1	12/26/2018 12:49 PM
Tetrachloroethene	46.7		3.39	µg/m3	1	12/26/2018 12:49 PM
Tetrahydrofuran	ND		1.47	µg/m3	1	12/26/2018 12:49 PM

Note:

ALS Environmental**Date:** 28-Dec-18**Client:** The Mannik & Smith Group**Project:** Swan Cleaners-Mansfield MS19-06; ODAS0002-50**Work Order:** 1812729**Sample ID:** SC-V-VP-10**Lab ID:** 1812729-10**Collection Date:** 12/19/2018**Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	3.50		1.88	µg/m3	1	12/26/2018 12:49 PM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	12/26/2018 12:49 PM
trans-1,3-Dichloropropene	ND		2.27	µg/m3	1	12/26/2018 12:49 PM
Trichloroethene	7.09		1.07	µg/m3	1	12/26/2018 12:49 PM
Trichlorofluoromethane	ND		2.81	µg/m3	1	12/26/2018 12:49 PM
Vinyl acetate	ND		1.76	µg/m3	1	12/26/2018 12:49 PM
Vinyl chloride	ND		1.28	µg/m3	1	12/26/2018 12:49 PM
Surr: Bromofluorobenzene	98.8		60-140	%REC	1	12/26/2018 12:49 PM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: 1812729

Sample ID: SC-V-VP-11

Lab ID: 1812729-11

Collection Date: 12/19/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			ETO-15		Analyst: MRJ	
1,1,1-Trichloroethane	6.6		5.0	ppbv	10	12/23/2018 12:29 AM
1,1,2,2-Tetrachloroethane	ND		5.0	ppbv	10	12/23/2018 12:29 AM
1,1,2-Trichloroethane	ND		5.0	ppbv	10	12/23/2018 12:29 AM
1,1-Dichloroethane	ND		5.0	ppbv	10	12/23/2018 12:29 AM
1,1-Dichloroethene	ND		5.0	ppbv	10	12/23/2018 12:29 AM
1,2,4-Trichlorobenzene	ND		5.0	ppbv	10	12/23/2018 12:29 AM
1,2,4-Trimethylbenzene	6.6		5.0	ppbv	10	12/23/2018 12:29 AM
1,2-Dibromoethane	ND		5.0	ppbv	10	12/23/2018 12:29 AM
1,2-Dichlorobenzene	ND		5.0	ppbv	10	12/23/2018 12:29 AM
1,2-Dichloroethane	ND		5.0	ppbv	10	12/23/2018 12:29 AM
1,2-Dichloropropane	ND		5.0	ppbv	10	12/23/2018 12:29 AM
1,3,5-Trimethylbenzene	ND		5.0	ppbv	10	12/23/2018 12:29 AM
1,3-Butadiene	ND		5.0	ppbv	10	12/23/2018 12:29 AM
1,3-Dichlorobenzene	ND		5.0	ppbv	10	12/23/2018 12:29 AM
1,4-Dichlorobenzene	ND		5.0	ppbv	10	12/23/2018 12:29 AM
1,4-Dioxane	ND		10	ppbv	10	12/23/2018 12:29 AM
2-Butanone	26		5.0	ppbv	10	12/23/2018 12:29 AM
2-Hexanone	ND		10	ppbv	10	12/23/2018 12:29 AM
2-Propanol	ND		10	ppbv	10	12/23/2018 12:29 AM
4-Ethyltoluene	ND		5.0	ppbv	10	12/23/2018 12:29 AM
4-Methyl-2-pentanone	ND		10	ppbv	10	12/23/2018 12:29 AM
Acetone	380	E	10	ppbv	10	12/23/2018 12:29 AM
Benzene	5.4		5.0	ppbv	10	12/23/2018 12:29 AM
Benzyl chloride	ND		5.0	ppbv	10	12/23/2018 12:29 AM
Bromodichloromethane	ND		5.0	ppbv	10	12/23/2018 12:29 AM
Bromoform	ND		5.0	ppbv	10	12/23/2018 12:29 AM
Bromomethane	ND		5.0	ppbv	10	12/23/2018 12:29 AM
Carbon disulfide	ND		5.0	ppbv	10	12/23/2018 12:29 AM
Carbon tetrachloride	ND		5.0	ppbv	10	12/23/2018 12:29 AM
Chlorobenzene	ND		5.0	ppbv	10	12/23/2018 12:29 AM
Chloroethane	ND		5.0	ppbv	10	12/23/2018 12:29 AM
Chloroform	ND		2.0	ppbv	10	12/23/2018 12:29 AM
Chloromethane	ND		5.0	ppbv	10	12/23/2018 12:29 AM
cis-1,2-Dichloroethene	430		250	ppbv	500	12/28/2018 12:21 AM
cis-1,3-Dichloropropene	ND		5.0	ppbv	10	12/23/2018 12:29 AM
Cumene	ND		5.0	ppbv	10	12/23/2018 12:29 AM
Cyclohexane	ND		5.0	ppbv	10	12/23/2018 12:29 AM
Dibromochloromethane	ND		5.0	ppbv	10	12/23/2018 12:29 AM
Dichlorodifluoromethane	ND		5.0	ppbv	10	12/23/2018 12:29 AM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: 1812729

Sample ID: SC-V-VP-11

Lab ID: 1812729-11

Collection Date: 12/19/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		5.0	ppbv	10	12/23/2018 12:29 AM
Ethylbenzene	ND		5.0	ppbv	10	12/23/2018 12:29 AM
Freon 113	ND		5.0	ppbv	10	12/23/2018 12:29 AM
Freon 114	ND		5.0	ppbv	10	12/23/2018 12:29 AM
Heptane	ND		5.0	ppbv	10	12/23/2018 12:29 AM
Hexachlorobutadiene	ND		5.0	ppbv	10	12/23/2018 12:29 AM
Hexane	ND		5.0	ppbv	10	12/23/2018 12:29 AM
m,p-Xylene	5.2		5.0	ppbv	10	12/23/2018 12:29 AM
Methylene chloride	ND		10	ppbv	10	12/23/2018 12:29 AM
MTBE	ND		5.0	ppbv	10	12/23/2018 12:29 AM
Naphthalene	ND		2.0	ppbv	10	12/23/2018 12:29 AM
o-Xylene	ND		5.0	ppbv	10	12/23/2018 12:29 AM
Propene	ND		5.0	ppbv	10	12/23/2018 12:29 AM
Styrene	ND		5.0	ppbv	10	12/23/2018 12:29 AM
Tetrachloroethene	23,000		2,500	ppbv	5000	12/28/2018 10:07 AM
Tetrahydrofuran	ND		5.0	ppbv	10	12/23/2018 12:29 AM
Toluene	8.0		5.0	ppbv	10	12/23/2018 12:29 AM
trans-1,2-Dichloroethene	11		5.0	ppbv	10	12/23/2018 12:29 AM
trans-1,3-Dichloropropene	ND		5.0	ppbv	10	12/23/2018 12:29 AM
Trichloroethene	700		100	ppbv	500	12/28/2018 12:21 AM
Trichlorofluoromethane	ND		5.0	ppbv	10	12/23/2018 12:29 AM
Vinyl acetate	ND		5.0	ppbv	10	12/23/2018 12:29 AM
Vinyl chloride	ND		5.0	ppbv	10	12/23/2018 12:29 AM
<i>Surr: Bromofluorobenzene</i>	<i>102</i>		<i>60-140</i>	<i>%REC</i>	10	12/23/2018 12:29 AM
TO-15 BY GC/MS			ETO-15			Analyst: MRJ
1,1,1-Trichloroethane	36.0		27.3	µg/m3	10	12/23/2018 12:29 AM
1,1,2,2-Tetrachloroethane	ND		34.3	µg/m3	10	12/23/2018 12:29 AM
1,1,2-Trichloroethane	ND		27.3	µg/m3	10	12/23/2018 12:29 AM
1,1-Dichloroethane	ND		20.2	µg/m3	10	12/23/2018 12:29 AM
1,1-Dichloroethene	ND		19.8	µg/m3	10	12/23/2018 12:29 AM
1,2,4-Trichlorobenzene	ND		37.1	µg/m3	10	12/23/2018 12:29 AM
1,2,4-Trimethylbenzene	32.4		24.6	µg/m3	10	12/23/2018 12:29 AM
1,2-Dibromoethane	ND		38.4	µg/m3	10	12/23/2018 12:29 AM
1,2-Dichlorobenzene	ND		30.1	µg/m3	10	12/23/2018 12:29 AM
1,2-Dichloroethane	ND		20.2	µg/m3	10	12/23/2018 12:29 AM
1,2-Dichloropropane	ND		23.1	µg/m3	10	12/23/2018 12:29 AM
1,3,5-Trimethylbenzene	ND		24.6	µg/m3	10	12/23/2018 12:29 AM
1,3-Butadiene	ND		11.1	µg/m3	10	12/23/2018 12:29 AM
1,3-Dichlorobenzene	ND		30.1	µg/m3	10	12/23/2018 12:29 AM
1,4-Dichlorobenzene	ND		30.1	µg/m3	10	12/23/2018 12:29 AM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: 1812729

Sample ID: SC-V-VP-11

Lab ID: 1812729-11

Collection Date: 12/19/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		36.0	µg/m3	10	12/23/2018 12:29 AM
2-Butanone	77.0		14.7	µg/m3	10	12/23/2018 12:29 AM
2-Hexanone	ND		41.0	µg/m3	10	12/23/2018 12:29 AM
2-Propanol	ND		24.6	µg/m3	10	12/23/2018 12:29 AM
4-Ethyltoluene	ND		24.6	µg/m3	10	12/23/2018 12:29 AM
4-Methyl-2-pentanone	ND		41.0	µg/m3	10	12/23/2018 12:29 AM
Acetone	896	E	23.8	µg/m3	10	12/23/2018 12:29 AM
Benzene	17.3		16.0	µg/m3	10	12/23/2018 12:29 AM
Benzyl chloride	ND		25.9	µg/m3	10	12/23/2018 12:29 AM
Bromodichloromethane	ND		33.5	µg/m3	10	12/23/2018 12:29 AM
Bromoform	ND		51.7	µg/m3	10	12/23/2018 12:29 AM
Bromomethane	ND		19.4	µg/m3	10	12/23/2018 12:29 AM
Carbon disulfide	ND		15.6	µg/m3	10	12/23/2018 12:29 AM
Carbon tetrachloride	ND		31.5	µg/m3	10	12/23/2018 12:29 AM
Chlorobenzene	ND		23.0	µg/m3	10	12/23/2018 12:29 AM
Chloroethane	ND		13.2	µg/m3	10	12/23/2018 12:29 AM
Chloroform	ND		9.76	µg/m3	10	12/23/2018 12:29 AM
Chloromethane	ND		10.3	µg/m3	10	12/23/2018 12:29 AM
cis-1,2-Dichloroethene	1,700		991	µg/m3	500	12/28/2018 12:21 AM
cis-1,3-Dichloropropene	ND		22.7	µg/m3	10	12/23/2018 12:29 AM
Cumene	ND		24.6	µg/m3	10	12/23/2018 12:29 AM
Cyclohexane	ND		17.2	µg/m3	10	12/23/2018 12:29 AM
Dibromochloromethane	ND		42.6	µg/m3	10	12/23/2018 12:29 AM
Dichlorodifluoromethane	ND		24.7	µg/m3	10	12/23/2018 12:29 AM
Ethyl acetate	ND		18.0	µg/m3	10	12/23/2018 12:29 AM
Ethylbenzene	ND		21.7	µg/m3	10	12/23/2018 12:29 AM
Freon 113	ND		38.3	µg/m3	10	12/23/2018 12:29 AM
Freon 114	ND		35.0	µg/m3	10	12/23/2018 12:29 AM
Heptane	ND		20.5	µg/m3	10	12/23/2018 12:29 AM
Hexachlorobutadiene	ND		53.3	µg/m3	10	12/23/2018 12:29 AM
Hexane	ND		17.6	µg/m3	10	12/23/2018 12:29 AM
m,p-Xylene	22.6		21.7	µg/m3	10	12/23/2018 12:29 AM
Methylene chloride	ND		34.7	µg/m3	10	12/23/2018 12:29 AM
MTBE	ND		18.0	µg/m3	10	12/23/2018 12:29 AM
Naphthalene	ND		10.5	µg/m3	10	12/23/2018 12:29 AM
o-Xylene	ND		21.7	µg/m3	10	12/23/2018 12:29 AM
Propene	ND		8.61	µg/m3	10	12/23/2018 12:29 AM
Styrene	ND		21.3	µg/m3	10	12/23/2018 12:29 AM
Tetrachloroethene	153,000		17,000	µg/m3	5000	12/28/2018 10:07 AM
Tetrahydrofuran	ND		14.7	µg/m3	10	12/23/2018 12:29 AM

Note:

ALS Environmental**Date:** 28-Dec-18**Client:** The Mannik & Smith Group**Project:** Swan Cleaners-Mansfield MS19-06; ODAS0002-50**Work Order:** 1812729**Sample ID:** SC-V-VP-11**Lab ID:** 1812729-11**Collection Date:** 12/19/2018**Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	30.1		18.8	µg/m3	10	12/23/2018 12:29 AM
trans-1,2-Dichloroethene	42.4		19.8	µg/m3	10	12/23/2018 12:29 AM
trans-1,3-Dichloropropene	ND		22.7	µg/m3	10	12/23/2018 12:29 AM
Trichloroethene	3,760		537	µg/m3	500	12/28/2018 12:21 AM
Trichlorofluoromethane	ND		28.1	µg/m3	10	12/23/2018 12:29 AM
Vinyl acetate	ND		17.6	µg/m3	10	12/23/2018 12:29 AM
Vinyl chloride	ND		12.8	µg/m3	10	12/23/2018 12:29 AM
Surr: Bromofluorobenzene	102		60-140	%REC	10	12/23/2018 12:29 AM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: 1812729

Sample ID: SC-V-VP-12

Lab ID: 1812729-12

Collection Date: 12/19/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			ETO-15		Analyst: MRJ	
1,1,1-Trichloroethane	6.3		5.0	ppbv	10	12/23/2018 01:14 AM
1,1,2,2-Tetrachloroethane	ND		5.0	ppbv	10	12/23/2018 01:14 AM
1,1,2-Trichloroethane	ND		5.0	ppbv	10	12/23/2018 01:14 AM
1,1-Dichloroethane	ND		5.0	ppbv	10	12/23/2018 01:14 AM
1,1-Dichloroethene	ND		5.0	ppbv	10	12/23/2018 01:14 AM
1,2,4-Trichlorobenzene	ND		5.0	ppbv	10	12/23/2018 01:14 AM
1,2,4-Trimethylbenzene	ND		5.0	ppbv	10	12/23/2018 01:14 AM
1,2-Dibromoethane	ND		5.0	ppbv	10	12/23/2018 01:14 AM
1,2-Dichlorobenzene	ND		5.0	ppbv	10	12/23/2018 01:14 AM
1,2-Dichloroethane	ND		5.0	ppbv	10	12/23/2018 01:14 AM
1,2-Dichloropropane	ND		5.0	ppbv	10	12/23/2018 01:14 AM
1,3,5-Trimethylbenzene	ND		5.0	ppbv	10	12/23/2018 01:14 AM
1,3-Butadiene	ND		5.0	ppbv	10	12/23/2018 01:14 AM
1,3-Dichlorobenzene	ND		5.0	ppbv	10	12/23/2018 01:14 AM
1,4-Dichlorobenzene	ND		5.0	ppbv	10	12/23/2018 01:14 AM
1,4-Dioxane	ND		10	ppbv	10	12/23/2018 01:14 AM
2-Butanone	ND		5.0	ppbv	10	12/23/2018 01:14 AM
2-Hexanone	ND		10	ppbv	10	12/23/2018 01:14 AM
2-Propanol	ND		10	ppbv	10	12/23/2018 01:14 AM
4-Ethyltoluene	ND		5.0	ppbv	10	12/23/2018 01:14 AM
4-Methyl-2-pentanone	ND		10	ppbv	10	12/23/2018 01:14 AM
Acetone	110		10	ppbv	10	12/23/2018 01:14 AM
Benzene	ND		5.0	ppbv	10	12/23/2018 01:14 AM
Benzyl chloride	ND		5.0	ppbv	10	12/23/2018 01:14 AM
Bromodichloromethane	ND		5.0	ppbv	10	12/23/2018 01:14 AM
Bromoform	ND		5.0	ppbv	10	12/23/2018 01:14 AM
Bromomethane	ND		5.0	ppbv	10	12/23/2018 01:14 AM
Carbon disulfide	ND		5.0	ppbv	10	12/23/2018 01:14 AM
Carbon tetrachloride	ND		5.0	ppbv	10	12/23/2018 01:14 AM
Chlorobenzene	ND		5.0	ppbv	10	12/23/2018 01:14 AM
Chloroethane	ND		5.0	ppbv	10	12/23/2018 01:14 AM
Chloroform	ND		2.0	ppbv	10	12/23/2018 01:14 AM
Chloromethane	ND		5.0	ppbv	10	12/23/2018 01:14 AM
cis-1,2-Dichloroethene	40		5.0	ppbv	10	12/23/2018 01:14 AM
cis-1,3-Dichloropropene	ND		5.0	ppbv	10	12/23/2018 01:14 AM
Cumene	ND		5.0	ppbv	10	12/23/2018 01:14 AM
Cyclohexane	ND		5.0	ppbv	10	12/23/2018 01:14 AM
Dibromochloromethane	ND		5.0	ppbv	10	12/23/2018 01:14 AM
Dichlorodifluoromethane	ND		5.0	ppbv	10	12/23/2018 01:14 AM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Work Order: 1812729

Sample ID: SC-V-VP-12

Lab ID: 1812729-12

Collection Date: 12/19/2018

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		5.0	ppbv	10	12/23/2018 01:14 AM
Ethylbenzene	ND		5.0	ppbv	10	12/23/2018 01:14 AM
Freon 113	ND		5.0	ppbv	10	12/23/2018 01:14 AM
Freon 114	ND		5.0	ppbv	10	12/23/2018 01:14 AM
Heptane	ND		5.0	ppbv	10	12/23/2018 01:14 AM
Hexachlorobutadiene	ND		5.0	ppbv	10	12/23/2018 01:14 AM
Hexane	ND		5.0	ppbv	10	12/23/2018 01:14 AM
m,p-Xylene	ND		5.0	ppbv	10	12/23/2018 01:14 AM
Methylene chloride	ND		10	ppbv	10	12/23/2018 01:14 AM
MTBE	ND		5.0	ppbv	10	12/23/2018 01:14 AM
Naphthalene	ND		2.0	ppbv	10	12/23/2018 01:14 AM
o-Xylene	ND		5.0	ppbv	10	12/23/2018 01:14 AM
Propene	ND		5.0	ppbv	10	12/23/2018 01:14 AM
Styrene	ND		5.0	ppbv	10	12/23/2018 01:14 AM
Tetrachloroethene	750		250	ppbv	500	12/28/2018 01:06 AM
Tetrahydrofuran	ND		5.0	ppbv	10	12/23/2018 01:14 AM
Toluene	ND		5.0	ppbv	10	12/23/2018 01:14 AM
trans-1,2-Dichloroethene	ND		5.0	ppbv	10	12/23/2018 01:14 AM
trans-1,3-Dichloropropene	ND		5.0	ppbv	10	12/23/2018 01:14 AM
Trichloroethene	37		2.0	ppbv	10	12/23/2018 01:14 AM
Trichlorofluoromethane	ND		5.0	ppbv	10	12/23/2018 01:14 AM
Vinyl acetate	ND		5.0	ppbv	10	12/23/2018 01:14 AM
Vinyl chloride	ND		5.0	ppbv	10	12/23/2018 01:14 AM
<i>Surr: Bromofluorobenzene</i>	<i>95.8</i>		<i>60-140</i>	<i>%REC</i>	<i>10</i>	<i>12/23/2018 01:14 AM</i>
TO-15 BY GC/MS			ETO-15			Analyst: MRJ
1,1,1-Trichloroethane	34.4		27.3	µg/m3	10	12/23/2018 01:14 AM
1,1,2,2-Tetrachloroethane	ND		34.3	µg/m3	10	12/23/2018 01:14 AM
1,1,2-Trichloroethane	ND		27.3	µg/m3	10	12/23/2018 01:14 AM
1,1-Dichloroethane	ND		20.2	µg/m3	10	12/23/2018 01:14 AM
1,1-Dichloroethene	ND		19.8	µg/m3	10	12/23/2018 01:14 AM
1,2,4-Trichlorobenzene	ND		37.1	µg/m3	10	12/23/2018 01:14 AM
1,2,4-Trimethylbenzene	ND		24.6	µg/m3	10	12/23/2018 01:14 AM
1,2-Dibromoethane	ND		38.4	µg/m3	10	12/23/2018 01:14 AM
1,2-Dichlorobenzene	ND		30.1	µg/m3	10	12/23/2018 01:14 AM
1,2-Dichloroethane	ND		20.2	µg/m3	10	12/23/2018 01:14 AM
1,2-Dichloropropane	ND		23.1	µg/m3	10	12/23/2018 01:14 AM
1,3,5-Trimethylbenzene	ND		24.6	µg/m3	10	12/23/2018 01:14 AM
1,3-Butadiene	ND		11.1	µg/m3	10	12/23/2018 01:14 AM
1,3-Dichlorobenzene	ND		30.1	µg/m3	10	12/23/2018 01:14 AM
1,4-Dichlorobenzene	ND		30.1	µg/m3	10	12/23/2018 01:14 AM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

Sample ID: SC-V-VP-12

Collection Date: 12/19/2018

Work Order: 1812729

Lab ID: 1812729-12

Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		36.0	µg/m3	10	12/23/2018 01:14 AM
2-Butanone	ND		14.7	µg/m3	10	12/23/2018 01:14 AM
2-Hexanone	ND		41.0	µg/m3	10	12/23/2018 01:14 AM
2-Propanol	ND		24.6	µg/m3	10	12/23/2018 01:14 AM
4-Ethyltoluene	ND		24.6	µg/m3	10	12/23/2018 01:14 AM
4-Methyl-2-pentanone	ND		41.0	µg/m3	10	12/23/2018 01:14 AM
Acetone	256		23.8	µg/m3	10	12/23/2018 01:14 AM
Benzene	ND		16.0	µg/m3	10	12/23/2018 01:14 AM
Benzyl chloride	ND		25.9	µg/m3	10	12/23/2018 01:14 AM
Bromodichloromethane	ND		33.5	µg/m3	10	12/23/2018 01:14 AM
Bromoform	ND		51.7	µg/m3	10	12/23/2018 01:14 AM
Bromomethane	ND		19.4	µg/m3	10	12/23/2018 01:14 AM
Carbon disulfide	ND		15.6	µg/m3	10	12/23/2018 01:14 AM
Carbon tetrachloride	ND		31.5	µg/m3	10	12/23/2018 01:14 AM
Chlorobenzene	ND		23.0	µg/m3	10	12/23/2018 01:14 AM
Chloroethane	ND		13.2	µg/m3	10	12/23/2018 01:14 AM
Chloroform	ND		9.76	µg/m3	10	12/23/2018 01:14 AM
Chloromethane	ND		10.3	µg/m3	10	12/23/2018 01:14 AM
cis-1,2-Dichloroethene	157		19.8	µg/m3	10	12/23/2018 01:14 AM
cis-1,3-Dichloropropene	ND		22.7	µg/m3	10	12/23/2018 01:14 AM
Cumene	ND		24.6	µg/m3	10	12/23/2018 01:14 AM
Cyclohexane	ND		17.2	µg/m3	10	12/23/2018 01:14 AM
Dibromochloromethane	ND		42.6	µg/m3	10	12/23/2018 01:14 AM
Dichlorodifluoromethane	ND		24.7	µg/m3	10	12/23/2018 01:14 AM
Ethyl acetate	ND		18.0	µg/m3	10	12/23/2018 01:14 AM
Ethylbenzene	ND		21.7	µg/m3	10	12/23/2018 01:14 AM
Freon 113	ND		38.3	µg/m3	10	12/23/2018 01:14 AM
Freon 114	ND		35.0	µg/m3	10	12/23/2018 01:14 AM
Heptane	ND		20.5	µg/m3	10	12/23/2018 01:14 AM
Hexachlorobutadiene	ND		53.3	µg/m3	10	12/23/2018 01:14 AM
Hexane	ND		17.6	µg/m3	10	12/23/2018 01:14 AM
m,p-Xylene	ND		21.7	µg/m3	10	12/23/2018 01:14 AM
Methylene chloride	ND		34.7	µg/m3	10	12/23/2018 01:14 AM
MTBE	ND		18.0	µg/m3	10	12/23/2018 01:14 AM
Naphthalene	ND		10.5	µg/m3	10	12/23/2018 01:14 AM
o-Xylene	ND		21.7	µg/m3	10	12/23/2018 01:14 AM
Propene	ND		8.61	µg/m3	10	12/23/2018 01:14 AM
Styrene	ND		21.3	µg/m3	10	12/23/2018 01:14 AM
Tetrachloroethene	5,090		1,700	µg/m3	500	12/28/2018 01:06 AM
Tetrahydrofuran	ND		14.7	µg/m3	10	12/23/2018 01:14 AM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group**Project:** Swan Cleaners-Mansfield MS19-06; ODAS0002-50**Work Order:** 1812729**Sample ID:** SC-V-VP-12**Lab ID:** 1812729-12**Collection Date:** 12/19/2018**Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	ND		18.8	µg/m3	10	12/23/2018 01:14 AM
trans-1,2-Dichloroethene	ND		19.8	µg/m3	10	12/23/2018 01:14 AM
trans-1,3-Dichloropropene	ND		22.7	µg/m3	10	12/23/2018 01:14 AM
Trichloroethene	197		10.7	µg/m3	10	12/23/2018 01:14 AM
Trichlorofluoromethane	ND		28.1	µg/m3	10	12/23/2018 01:14 AM
Vinyl acetate	ND		17.6	µg/m3	10	12/23/2018 01:14 AM
Vinyl chloride	ND		12.8	µg/m3	10	12/23/2018 01:14 AM
Surr: Bromofluorobenzene	95.8		60-140	%REC	10	12/23/2018 01:14 AM

Note:

ALS Environmental

Date: 28-Dec-18

Client: The Mannik & Smith Group

Work Order: 1812729

Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

QC BATCH REPORT

Batch ID: R160119

Instrument ID: VMS4

Method: ETO-15

mbk Sample ID: MBLK-R160119			Units: ppbv			Analysis Date: 12/22/2018 10:16 AM				
Client ID:		Run ID: VMS4_181222A		SeqNo: 1893830		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	0.50								
1,1,2,2-Tetrachloroethane	ND	0.50								
1,1,2-Trichloroethane	ND	0.50								
1,1-Dichloroethane	ND	0.50								
1,1-Dichloroethene	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.50								
1,2,4-Trimethylbenzene	ND	0.50								
1,2-Dibromoethane	ND	0.50								
1,2-Dichlorobenzene	ND	0.50								
1,2-Dichloroethane	ND	0.50								
1,2-Dichloropropane	ND	0.50								
1,3,5-Trimethylbenzene	ND	0.50								
1,3-Butadiene	ND	0.50								
1,3-Dichlorobenzene	ND	0.50								
1,4-Dichlorobenzene	ND	0.50								
1,4-Dioxane	ND	1.0								
2-Butanone	ND	0.50								
2-Hexanone	ND	1.0								
2-Propanol	ND	1.0								
4-Ethyltoluene	ND	0.50								
4-Methyl-2-pentanone	ND	1.0								
Acetone	ND	1.0								
Benzene	ND	0.50								
Benzyl chloride	ND	0.50								
Bromodichloromethane	ND	0.50								
Bromoform	ND	0.50								
Bromomethane	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.50								
Chlorobenzene	ND	0.50								
Chloroethane	ND	0.50								
Chloroform	ND	0.20								
Chloromethane	ND	0.50								
cis-1,2-Dichloroethene	ND	0.50								
cis-1,3-Dichloropropene	ND	0.50								
Cumene	ND	0.50								
Cyclohexane	ND	0.50								
Dibromochloromethane	ND	0.50								
Dichlorodifluoromethane	ND	0.50								
Ethyl acetate	ND	0.50								
Ethylbenzene	ND	0.50								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik & Smith Group
Work Order: 1812729
Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

QC BATCH REPORT

Batch ID: R160119		Instrument ID: VMS4		Method: ETO-15			
Freon 113	ND	0.50					
Freon 114	ND	0.50					
Heptane	ND	0.50					
Hexachlorobutadiene	ND	0.50					
Hexane	ND	0.50					
m,p-Xylene	ND	0.50					
Methylene chloride	ND	1.0					
MTBE	ND	0.50					
Naphthalene	ND	0.20					
o-Xylene	ND	0.50					
Propene	ND	0.50					
Styrene	ND	0.50					
Tetrachloroethene	ND	0.50					
Tetrahydrofuran	ND	0.50					
Toluene	ND	0.50					
trans-1,2-Dichloroethene	ND	0.50					
trans-1,3-Dichloropropene	ND	0.50					
Trichloroethene	ND	0.20					
Trichlorofluoromethane	ND	0.50					
Vinyl acetate	ND	0.50					
Vinyl chloride	ND	0.50					
<i>Surr: Bromofluorobenzene</i>	9.27	0	10	0	92.7	60-140	0

Client: The Mannik & Smith Group
Work Order: 1812729
Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

QC BATCH REPORT

Batch ID: R160119 Instrument ID: VMS4 Method: ETO-15

Ics	Sample ID: LCS-R160119			Units: ppbv			Analysis Date: 12/22/2018 09:32 AM			
Client ID:	Run ID: VMS4_181222A			SeqNo: 1893829			Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	10.21	0.50	10		0	102	58.8-163	0		
1,1,2,2-Tetrachloroethane	10.15	0.50	10		0	102	60-140	0		
1,1,2-Trichloroethane	10.22	0.50	10		0	102	60-140	0		
1,1-Dichloroethane	9.84	0.50	10		0	98.4	60-140	0		
1,1-Dichloroethene	9.82	0.50	10		0	98.2	60-140	0		
1,2,4-Trichlorobenzene	9.94	0.50	10		0	99.4	49.3-150	0		
1,2,4-Trimethylbenzene	10.82	0.50	10		0	108	50.1-162	0		
1,2-Dibromoethane	10.31	0.50	10		0	103	60-140	0		
1,2-Dichlorobenzene	10.86	0.50	10		0	109	41.9-141	0		
1,2-Dichloroethane	9.71	0.50	10		0	97.1	60-140	0		
1,2-Dichloropropane	9.71	0.50	10		0	97.1	60-140	0		
1,3,5-Trimethylbenzene	10.51	0.50	10		0	105	60-140	0		
1,3-Butadiene	12.24	0.50	10		0	122	50.6-140	0		
1,3-Dichlorobenzene	10.93	0.50	10		0	109	60-140	0		
1,4-Dichlorobenzene	10.86	0.50	10		0	109	55.1-145	0		
1,4-Dioxane	10.3	1.0	10		0	103	60-140	0		
2-Butanone	10.67	0.50	10		0	107	60-140	0		
2-Hexanone	10.11	1.0	10		0	101	56.2-162	0		
2-Propanol	9.54	1.0	10		0	95.4	60-140	0		
4-Ethyltoluene	11	0.50	10		0	110	60-140	0		
4-Methyl-2-pentanone	9.9	1.0	10		0	99	60-140	0		
Acetone	9.14	1.0	10		0	91.4	60-140	0		
Benzene	9.98	0.50	10		0	99.8	60-140	0		
Benzyl chloride	11.06	0.50	10		0	111	31.9-174	0		
Bromodichloromethane	10.09	0.50	10		0	101	60-140	0		
Bromoform	11.06	0.50	10		0	111	60-140	0		
Bromomethane	11.03	0.50	10		0	110	60-140	0		
Carbon disulfide	9.98	0.50	10		0	99.8	60-140	0		
Carbon tetrachloride	10.28	0.50	10		0	103	60-140	0		
Chlorobenzene	10.09	0.50	10		0	101	60-140	0		
Chloroethane	9.84	0.50	10		0	98.4	60-140	0		
Chloroform	10.11	0.20	10		0	101	60-140	0		
Chloromethane	12.58	0.50	10		0	126	60-140	0		
cis-1,2-Dichloroethene	10.1	0.50	10		0	101	60-140	0		
cis-1,3-Dichloropropene	10.31	0.50	10		0	103	60-140	0		
Cumene	10.54	0.50	10		0	105	60-140	0		
Cyclohexane	10.26	0.50	10		0	103	60-140	0		
Dibromochloromethane	10.52	0.50	10		0	105	60-140	0		
Dichlorodifluoromethane	11.2	0.50	10		0	112	60-140	0		
Ethyl acetate	10.88	0.50	10		0	109	60-140	0		
Ethylbenzene	10.23	0.50	10		0	102	60-140	0		
Freon 113	10.18	0.50	10		0	102	60-140	0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik & Smith Group
Work Order: 1812729
Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

QC BATCH REPORT

Batch ID: R160119		Instrument ID: VMS4		Method: ETO-15			
Freon 114	11.44	0.50	10	0	114	60-140	0
Heptane	9.62	0.50	10	0	96.2	60-140	0
Hexachlorobutadiene	10.73	0.50	10	0	107	60-140	0
Hexane	9.94	0.50	10	0	99.4	60-140	0
m,p-Xylene	20.61	0.50	20	0	103	60-140	0
Methylene chloride	8.67	1.0	10	0	86.7	60-140	0
MTBE	10.28	0.50	10	0	103	60.8-151	0
Naphthalene	9.51	0.20	10	0	95.1	53.1-152	0
o-Xylene	10.24	0.50	10	0	102	60-140	0
Propene	12.37	0.50	10	0	124	34.4-139	0
Styrene	10.58	0.50	10	0	106	60-140	0
Tetrachloroethene	10.79	0.50	10	0	108	60-140	0
Tetrahydrofuran	9.19	0.50	10	0	91.9	60-140	0
Toluene	10.27	0.50	10	0	103	60-140	0
trans-1,2-Dichloroethene	10.25	0.50	10	0	102	60-140	0
trans-1,3-Dichloropropene	10.08	0.50	10	0	101	60-140	0
Trichloroethene	10.11	0.20	10	0	101	60-140	0
Trichlorofluoromethane	10.22	0.50	10	0	102	60-140	0
Vinyl acetate	10.49	0.50	10	0	105	48.4-145	0
Vinyl chloride	12.51	0.50	10	0	125	60-140	0
Surr: Bromofluorobenzene	9.71	0	10	0	97.1	60-140	0

The following samples were analyzed in this batch:

1812729-01A	1812729-04A	1812729-05A
1812729-11A	1812729-12A	

Client: The Mannik & Smith Group
 Work Order: 1812729
 Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

QC BATCH REPORT

Batch ID: R160158 Instrument ID: VMS4 Method: ETO-15

mbk Sample ID: MBLK-R160158			Units: ppbv			Analysis Date: 12/26/2018 12:04 PM				
Client ID:		Run ID: VMS4_181226A			SeqNo: 1894538		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	0.50								
1,1,2,2-Tetrachloroethane	ND	0.50								
1,1,2-Trichloroethane	ND	0.50								
1,1-Dichloroethane	ND	0.50								
1,1-Dichloroethene	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.50								
1,2,4-Trimethylbenzene	ND	0.50								
1,2-Dibromoethane	ND	0.50								
1,2-Dichlorobenzene	ND	0.50								
1,2-Dichloroethane	ND	0.50								
1,2-Dichloropropane	ND	0.50								
1,3,5-Trimethylbenzene	ND	0.50								
1,3-Butadiene	ND	0.50								
1,3-Dichlorobenzene	ND	0.50								
1,4-Dichlorobenzene	ND	0.50								
1,4-Dioxane	ND	1.0								
2-Butanone	ND	0.50								
2-Hexanone	ND	1.0								
2-Propanol	ND	1.0								
4-Ethyltoluene	ND	0.50								
4-Methyl-2-pentanone	ND	1.0								
Acetone	ND	1.0								
Benzene	ND	0.50								
Benzyl chloride	ND	0.50								
Bromodichloromethane	ND	0.50								
Bromoform	ND	0.50								
Bromomethane	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.50								
Chlorobenzene	ND	0.50								
Chloroethane	ND	0.50								
Chloroform	ND	0.20								
Chloromethane	ND	0.50								
cis-1,2-Dichloroethene	ND	0.50								
cis-1,3-Dichloropropene	ND	0.50								
Cumene	ND	0.50								
Cyclohexane	ND	0.50								
Dibromochloromethane	ND	0.50								
Dichlorodifluoromethane	ND	0.50								
Ethyl acetate	ND	0.50								
Ethylbenzene	ND	0.50								
Freon 113	ND	0.50								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik & Smith Group
Work Order: 1812729
Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

QC BATCH REPORT

Batch ID: R160158		Instrument ID: VMS4		Method: ETO-15	
Freon 114	ND	0.50			
Heptane	ND	0.50			
Hexachlorobutadiene	ND	0.50			
Hexane	ND	0.50			
m,p-Xylene	ND	0.50			
Methylene chloride	ND	1.0			
MTBE	ND	0.50			
Naphthalene	ND	0.20			
o-Xylene	ND	0.50			
Propene	ND	0.50			
Styrene	ND	0.50			
Tetrachloroethene	ND	0.50			
Tetrahydrofuran	ND	0.50			
Toluene	ND	0.50			
trans-1,2-Dichloroethene	ND	0.50			
trans-1,3-Dichloropropene	ND	0.50			
Trichloroethene	ND	0.20			
Trichlorofluoromethane	ND	0.50			
Vinyl acetate	ND	0.50			
Vinyl chloride	ND	0.50			
Surr: Bromofluorobenzene	9.31	0	10	0	93.1 60-140 0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik & Smith Group
 Work Order: 1812729
 Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

QC BATCH REPORT

Batch ID: R160158 Instrument ID: VMS4 Method: ETO-15

Sample ID: LCS-R160158				Units: ppbv			Analysis Date: 12/26/2018 11:20 AM			
Client ID:		Run ID: VMS4_181226A			SeqNo: 1894537		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	10.55	0.50	10	0	106	58.8-163	0			
1,1,2,2-Tetrachloroethane	10.42	0.50	10	0	104	60-140	0			
1,1,2-Trichloroethane	10.5	0.50	10	0	105	60-140	0			
1,1-Dichloroethane	10.16	0.50	10	0	102	60-140	0			
1,1-Dichloroethene	10.19	0.50	10	0	102	60-140	0			
1,2,4-Trichlorobenzene	10.17	0.50	10	0	102	49.3-150	0			
1,2,4-Trimethylbenzene	11.24	0.50	10	0	112	50.1-162	0			
1,2-Dibromoethane	10.66	0.50	10	0	107	60-140	0			
1,2-Dichlorobenzene	11.22	0.50	10	0	112	41.9-141	0			
1,2-Dichloroethane	10.15	0.50	10	0	102	60-140	0			
1,2-Dichloropropane	9.99	0.50	10	0	99.9	60-140	0			
1,3,5-Trimethylbenzene	11.01	0.50	10	0	110	60-140	0			
1,3-Butadiene	12.3	0.50	10	0	123	50.6-140	0			
1,3-Dichlorobenzene	11.2	0.50	10	0	112	60-140	0			
1,4-Dichlorobenzene	11.24	0.50	10	0	112	55.1-145	0			
1,4-Dioxane	10.37	1.0	10	0	104	60-140	0			
2-Butanone	10.64	0.50	10	0	106	60-140	0			
2-Hexanone	10.61	1.0	10	0	106	56.2-162	0			
2-Propanol	9.86	1.0	10	0	98.6	60-140	0			
4-Ethyltoluene	11.32	0.50	10	0	113	60-140	0			
4-Methyl-2-pentanone	10.38	1.0	10	0	104	60-140	0			
Acetone	9.67	1.0	10	0	96.7	60-140	0			
Benzene	9.94	0.50	10	0	99.4	60-140	0			
Benzyl chloride	11.44	0.50	10	0	114	31.9-174	0			
Bromodichloromethane	10.59	0.50	10	0	106	60-140	0			
Bromoform	11.29	0.50	10	0	113	60-140	0			
Bromomethane	11.56	0.50	10	0	116	60-140	0			
Carbon disulfide	10.15	0.50	10	0	102	60-140	0			
Carbon tetrachloride	10.72	0.50	10	0	107	60-140	0			
Chlorobenzene	10.32	0.50	10	0	103	60-140	0			
Chloroethane	10.14	0.50	10	0	101	60-140	0			
Chloroform	10.41	0.20	10	0	104	60-140	0			
Chloromethane	12.68	0.50	10	0	127	60-140	0			
cis-1,2-Dichloroethene	10.31	0.50	10	0	103	60-140	0			
cis-1,3-Dichloropropene	10.58	0.50	10	0	106	60-140	0			
Cumene	10.85	0.50	10	0	108	60-140	0			
Cyclohexane	10.27	0.50	10	0	103	60-140	0			
Dibromochloromethane	10.98	0.50	10	0	110	60-140	0			
Dichlorodifluoromethane	11.97	0.50	10	0	120	60-140	0			
Ethyl acetate	10.83	0.50	10	0	108	60-140	0			
Ethylbenzene	10.47	0.50	10	0	105	60-140	0			
Freon 113	10.43	0.50	10	0	104	60-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik & Smith Group
Work Order: 1812729
Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

QC BATCH REPORT

Batch ID: R160158		Instrument ID: VMS4		Method: ETO-15			
Freon 114	12	0.50	10	0	120	60-140	0
Heptane	9.86	0.50	10	0	98.6	60-140	0
Hexachlorobutadiene	11.12	0.50	10	0	111	60-140	0
Hexane	10.07	0.50	10	0	101	60-140	0
m,p-Xylene	21.23	0.50	20	0	106	60-140	0
Methylene chloride	9.07	1.0	10	0	90.7	60-140	0
MTBE	10.48	0.50	10	0	105	60.8-151	0
Naphthalene	10.04	0.20	10	0	100	53.1-152	0
o-Xylene	10.56	0.50	10	0	106	60-140	0
Propene	12.98	0.50	10	0	130	34.4-139	0
Styrene	10.81	0.50	10	0	108	60-140	0
Tetrachloroethene	10.87	0.50	10	0	109	60-140	0
Tetrahydrofuran	9.41	0.50	10	0	94.1	60-140	0
Toluene	10.49	0.50	10	0	105	60-140	0
trans-1,2-Dichloroethene	10.38	0.50	10	0	104	60-140	0
trans-1,3-Dichloropropene	10.48	0.50	10	0	105	60-140	0
Trichloroethene	10.43	0.20	10	0	104	60-140	0
Trichlorofluoromethane	10.79	0.50	10	0	108	60-140	0
Vinyl acetate	10.95	0.50	10	0	110	48.4-145	0
Vinyl chloride	12.72	0.50	10	0	127	60-140	0
Surr: Bromofluorobenzene	9.85	0	10	0	98.5	60-140	0

The following samples were analyzed in this batch:

1812729-02A	1812729-03A	1812729-06A
1812729-07A	1812729-08A	1812729-09A
1812729-10A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik & Smith Group
Work Order: 1812729
Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50

QC BATCH REPORT

Batch ID: **R160203** Instrument ID: **VMS4** Method: **ETO-15**

mbk	Sample ID: MBLK-R160203			Units: ppbv			Analysis Date: 12/27/2018 12:16 PM			
Client ID:	Run ID: VMS4_181227A			SeqNo: 1895655			Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon tetrachloride	ND	0.50								
Chloroform	ND	0.20								
cis-1,2-Dichloroethene	ND	0.50								
Heptane	ND	0.50								
Hexane	ND	0.50								
Tetrachloroethene	ND	0.50								
Trichloroethene	ND	0.20								
Surr: Bromofluorobenzene	9.09	0	10	0	90.9	60-140	0			

lcs		Sample ID: LCS-R160203			Units: ppbv		Analysis Date: 12/27/2018 11:32 AM			
Client ID:		Run ID: VMS4_181227A			SeqNo: 1895654		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon tetrachloride	9.98	0.50	10	0	99.8	60-140	0			
Chloroform	9.63	0.20	10	0	96.3	60-140	0			
cis-1,2-Dichloroethene	9.38	0.50	10	0	93.8	60-140	0			
Heptane	8.76	0.50	10	0	87.6	60-140	0			
Hexane	9.13	0.50	10	0	91.3	60-140	0			
Tetrachloroethene	11.04	0.50	10	0	110	60-140	0			
Trichloroethene	9.87	0.20	10	0	98.7	60-140	0			
Surr: Bromofluorobenzene	9.59	0	10	0	95.9	60-140	0			

The following samples were analyzed in this batch:

1812729-03A	1812729-06A	1812729-11A
1812729-12A		

Client: The Mannik & Smith Group
Project: Swan Cleaners-Mansfield MS19-06; ODAS0002-50
WorkOrder: 1812729

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
µg/m3	
none	
ppbv	

Sample Receipt Checklist

Client Name: MANNIK-MAUMEE

Date/Time Received: 20-Dec-18 09:40

Work Order: 1812729

Received by: SNH

Checklist completed by: Stephanie Harrington

20-Dec-18

Reviewed by: Rob Nieman

26-Dec-18

eSignature

Date

eSignature

Date

Matrices:

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<input type="text"/>		
Cooler(s)/Kit(s):	<input type="text"/>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<input type="text"/>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

Air Canister - Chain of Custody Record / Analytical Service Request

Ship To: **ALS Environmental**
4388 Glendale Milford Rd.
Cincinnati, Ohio 45242
(513) 733-5336
Fax: (513) 733-5347



Page 1 of 1

01591

Requested Turnaround Time in Business Days (Surcharges) please circle

1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day-Standard

ALS Project No.

Company Name & Address (Reporting Information)				Project Name				OH VAP: <input checked="" type="radio"/> Yes <input type="radio"/> No				Comments / Specific Instructions (ie: Water or pressure issues)
The Mannick + Smith Group, Inc. 1800 Indian Wood Circle Maumee, OH 43537				Swan Cleaners - Mansfield MS19-06				OH BUST: <input type="radio"/> Yes <input type="radio"/> No				
Project Manager Matt Pesci				Project Number ODAS0002 - 50				Analysis Method				
P.O. # / Billing Information				P.O. # / Billing Information				Type:				TO15 VOCs
Ohio EPA - DERR Lazarus Government Center, PO Box 1049 Columbus, OH 43216-1049				Ohio EPA - DERR Lazarus Government Center, PO Box 1049 Columbus, OH 43216-1049				SS = SubSlab IA = Indoor Air SG = Soil Gas O = Other AA = Ambient Air SVE = Soil Vapor Extract				
Email Address for Result Reporting mpesci@mannicksmithgroup.com				Sampler (Print & Sign) Matt Pesci								
Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID	Flow Controller ID	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	PID				
SC-V-VP-01	01	12-19-18	14:26	119237	109850	29	4	1.1	X	SG		
SC-V-VP-02	02	12-19-18	14:30	109938	119239	29	2	8.9	X	SG		
SC-V-VP-03	03	12-19-18	14:16	109934	119623	29	3	112	X	SG		
SC-V-VP-04	04	12-19-18	14:07	119234	109869	28	3	4.5	X	SG		
SC-V-VP-05	05	12-19-18	14:05	119243	109862	27.5	4	5.8	X	SG		
SC-V-VP-06	06	12-19-18	13:52	109926	109846	29.5	3	17.1	X	SG		
SC-V-VP-07	07	12-19-18	13:51	119250	109847	29	4	25.2	X	SG		
SC-V-VP-08	08	12-19-18	13:35	109946	109351	28	4	850	X	SG		
SC-V-VP-09	09	12-19-18	12:38	109223	109181	29	4	0.9	X	SS		
SC-V-VP-10	10	12-19-18	12:23	109940	119230	30	03	0.0	X	SS		
SC-V-VP-11	11	12-19-18	12:10	109932	109127	22	3	0.0	X	SS		
SC-V-VP-12	12	12-19-18	11:51	109242	109123	29	3	0.6	X	SS		

There will be additional charges for damaged equipment

Report QC Levels Level II
 EDD required ☒ Yes / ☐ No
 Type: _____ Units: _____

Relinquished by: (Signature) [Signature] Date: 12-19-18 Time: 17:00
 Relinquished by: (Signature) [Signature] Date: 12-19-18 Time: 17:00

Project Requirements (MRLs, QAPP) [Signature]
 Cooler / Blank Temperature 71.0 °C



03-Jan-2019

Matt Pesci
The Mannik & Smith Group
1800 Indian Wood Circle
Maumee, OH 43537

Tel: (419) 891-2222
Fax: 419-891-1595

Re: Mob Order #MS19-06 Swan Cleaners- Mansfield; PN.: ODAS0 Work Order: **1812848**

Dear Matt,

ALS Environmental received 9 samples on 21-Dec-2018 04:09 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 30.

If you have any questions regarding this report, please feel free to contact me.


Sincerely,

Rob Nieman

Electronically approved by: Rob Nieman

Rob Nieman
Project Manager

ADDRESS 4388 Glendale Milford Rd Cincinnati, OH 45242- | PHONE (513) 733-5336 | FAX (513) 733-5347
ALS GROUP USA, CORP. Part of the ALS Group An ALS Limited Company

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

ALS Environmental

Date: 03-Jan-19

Client: The Mannik & Smith Group
Project: Mob Order #MS19-06 Swan Cleaners- Mansfield; PN.: OD
Work Order: 1812848

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1812848-01	SC-SB-GP-13 (0-2')	Soil		12/19/2018 10:48	12/21/2018 16:09	<input type="checkbox"/>
1812848-02	SC-SB-GP-14 (0-2')	Soil		12/19/2018 10:15	12/21/2018 16:09	<input type="checkbox"/>
1812848-03	SC-SB-GP-15 (0-2')	Soil		12/19/2018 11:10	12/21/2018 16:09	<input type="checkbox"/>
1812848-04	SC-SB-GP-16 (12-15')	Soil		12/19/2018 10:35	12/21/2018 16:09	<input type="checkbox"/>
1812848-05	SC-SB-GP-17 (4-6')	Soil		12/19/2018 10:09	12/21/2018 16:09	<input type="checkbox"/>
1812848-06	SC-SB-GP-18 (12-15')	Soil		12/19/2018 10:55	12/21/2018 16:09	<input type="checkbox"/>
1812848-07	SC-SB-GP-19 (10-12')	Soil		12/19/2018 11:20	12/21/2018 16:09	<input type="checkbox"/>
1812848-08	SC-SB-GP-20 (8-10')	Soil		12/19/2018 11:50	12/21/2018 16:09	<input type="checkbox"/>
1812848-09	SC-SB-GP-22 (2-4')	Soil		12/19/2018 12:30	12/21/2018 16:09	<input type="checkbox"/>

ALS Environmental

Date: 03-Jan-19

Client: The Mannik & Smith Group
Project: Mob Order #MS19-06 Swan Cleaners- Mansfield; PN.: OD
Work Order: 1812848

Case Narrative

The analyses requested were analyzed according to Ohio Voluntary Action Program requirements. Affidavits are available upon request.

The analytical data provided relates directly to the samples received by ALS Laboratory Group and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

ALS Environmental

Date: 03-Jan-19

Client: The Mannik & Smith Group

Project: Mob Order #MS19-06 Swan Cleaners- Mansfield; PN.:

Work Order: 1812848

Sample ID: SC-SB-GP-13 (0-2')

Lab ID: 1812848-01

Collection Date: 12/19/2018 10:48 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE						
Moisture	15		SM2540B	% of sample	1	Analyst: CAA 12/27/2018
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep Date: 12/27/2018	Analyst: LAK
1,1,1,2-Tetrachloroethane	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
1,1,1-Trichloroethane	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
1,1,2,2-Tetrachloroethane	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
1,1,2-Trichloroethane	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
1,1-Dichloroethane	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
1,1-Dichloroethene	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
1,1-Dichloropropene	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
1,2,3-Trichlorobenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
1,2,3-Trichloropropane	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
1,2,4-Trichlorobenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
1,2,4-Trimethylbenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
1,2-Dibromo-3-chloropropane	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
1,2-Dibromoethane	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
1,2-Dichlorobenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
1,2-Dichloroethane	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
1,2-Dichloropropane	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
1,3,5-Trimethylbenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
1,3-Dichlorobenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
1,3-Dichloropropane	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
1,4-Dichlorobenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
2,2-Dichloropropane	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
2-Butanone	ND		42	µg/Kg-dry	1	12/27/2018 10:43 AM
2-Chlorotoluene	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
2-Hexanone	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
4-Chlorotoluene	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
4-Methyl-2-pentanone	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
Acetone	ND		42	µg/Kg-dry	1	12/27/2018 10:43 AM
Benzene	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
Bromobenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
Bromochloromethane	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
Bromodichloromethane	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
Bromoform	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
Bromomethane	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
Carbon disulfide	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
Carbon tetrachloride	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
Chlorobenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM

Note:

ALS Environmental

Date: 03-Jan-19

Client: The Mannik & Smith Group

Project: Mob Order #MS19-06 Swan Cleaners- Mansfield; PN.:

Work Order: 1812848

Sample ID: SC-SB-GP-13 (0-2')

Lab ID: 1812848-01

Collection Date: 12/19/2018 10:48 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroethane	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
Chloroform	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
Chloromethane	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
cis-1,2-Dichloroethene	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
cis-1,3-Dichloropropene	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
Dibromochloromethane	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
Dibromomethane	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
Dichlorodifluoromethane	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
Ethylbenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
Hexachlorobutadiene	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
Isopropylbenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
m,p-Xylene	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
Methyl tert-butyl ether	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
Methylene chloride	ND		17	µg/Kg-dry	1	12/27/2018 10:43 AM
Naphthalene	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
n-Butylbenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
n-Propylbenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
o-Xylene	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
p-Isopropyltoluene	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
sec-Butylbenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
Styrene	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
tert-Butylbenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
Tetrachloroethene	13		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
Toluene	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
trans-1,2-Dichloroethene	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
trans-1,3-Dichloropropene	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
Trichloroethene	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
Trichlorofluoromethane	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
Vinyl chloride	ND		4.2	µg/Kg-dry	1	12/27/2018 10:43 AM
Xylenes, Total	ND		8.4	µg/Kg-dry	1	12/27/2018 10:43 AM
Surr: 4-Bromofluorobenzene	96.9		62.7-159	%REC	1	12/27/2018 10:43 AM
Surr: Dibromofluoromethane	95.4		67.3-136	%REC	1	12/27/2018 10:43 AM
Surr: Toluene-d8	97.9		83-124	%REC	1	12/27/2018 10:43 AM

Note:

ALS Environmental

Date: 03-Jan-19

Client: The Mannik & Smith Group

Project: Mob Order #MS19-06 Swan Cleaners- Mansfield; PN.:

Work Order: 1812848

Sample ID: SC-SB-GP-14 (0-2')

Lab ID: 1812848-02

Collection Date: 12/19/2018 10:15 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE						
Moisture	15		SM2540B	% of sample	1	Analyst: CAA 12/27/2018
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep Date: 12/27/2018	Analyst: LAK
1,1,1,2-Tetrachloroethane	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
1,1,1-Trichloroethane	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
1,1,2,2-Tetrachloroethane	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
1,1,2-Trichloroethane	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
1,1-Dichloroethane	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
1,1-Dichloroethene	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
1,1-Dichloropropene	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
1,2,3-Trichlorobenzene	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
1,2,3-Trichloropropane	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
1,2,4-Trichlorobenzene	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
1,2,4-Trimethylbenzene	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
1,2-Dibromo-3-chloropropane	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
1,2-Dibromoethane	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
1,2-Dichlorobenzene	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
1,2-Dichloroethane	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
1,2-Dichloropropane	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
1,3,5-Trimethylbenzene	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
1,3-Dichlorobenzene	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
1,3-Dichloropropane	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
1,4-Dichlorobenzene	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
2,2-Dichloropropane	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
2-Butanone	ND		41	µg/Kg-dry	1	12/27/2018 11:06 AM
2-Chlorotoluene	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
2-Hexanone	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
4-Chlorotoluene	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
4-Methyl-2-pentanone	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
Acetone	72		41	µg/Kg-dry	1	12/27/2018 11:06 AM
Benzene	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
Bromobenzene	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
Bromochloromethane	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
Bromodichloromethane	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
Bromoform	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
Bromomethane	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
Carbon disulfide	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
Carbon tetrachloride	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
Chlorobenzene	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM

Note:

ALS Environmental

Date: 03-Jan-19

Client: The Mannik & Smith Group

Project: Mob Order #MS19-06 Swan Cleaners- Mansfield; PN.:

Work Order: 1812848

Sample ID: SC-SB-GP-14 (0-2')

Lab ID: 1812848-02

Collection Date: 12/19/2018 10:15 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroethane	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
Chloroform	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
Chloromethane	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
cis-1,2-Dichloroethene	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
cis-1,3-Dichloropropene	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
Dibromochloromethane	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
Dibromomethane	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
Dichlorodifluoromethane	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
Ethylbenzene	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
Hexachlorobutadiene	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
Isopropylbenzene	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
m,p-Xylene	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
Methyl tert-butyl ether	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
Methylene chloride	ND		17	µg/Kg-dry	1	12/27/2018 11:06 AM
Naphthalene	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
n-Butylbenzene	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
n-Propylbenzene	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
o-Xylene	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
p-Isopropyltoluene	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
sec-Butylbenzene	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
Styrene	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
tert-Butylbenzene	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
Tetrachloroethene	6.6		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
Toluene	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
trans-1,2-Dichloroethene	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
trans-1,3-Dichloropropene	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
Trichloroethene	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
Trichlorofluoromethane	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
Vinyl chloride	ND		4.1	µg/Kg-dry	1	12/27/2018 11:06 AM
Xylenes, Total	ND		8.3	µg/Kg-dry	1	12/27/2018 11:06 AM
Surr: 4-Bromofluorobenzene	101		62.7-159	%REC	1	12/27/2018 11:06 AM
Surr: Dibromofluoromethane	96.5		67.3-136	%REC	1	12/27/2018 11:06 AM
Surr: Toluene-d8	98.5		83-124	%REC	1	12/27/2018 11:06 AM

Note:

ALS Environmental

Date: 03-Jan-19

Client: The Mannik & Smith Group

Project: Mob Order #MS19-06 Swan Cleaners- Mansfield; PN.:

Work Order: 1812848

Sample ID: SC-SB-GP-15 (0-2')

Lab ID: 1812848-03

Collection Date: 12/19/2018 11:10 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE						
Moisture	18		SM2540B	% of sample	1	Analyst: CAA 12/27/2018
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep Date: 12/27/2018	Analyst: LAK
1,1,1,2-Tetrachloroethane	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
1,1,1-Trichloroethane	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
1,1,2,2-Tetrachloroethane	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
1,1,2-Trichloroethane	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
1,1-Dichloroethane	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
1,1-Dichloroethene	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
1,1-Dichloropropene	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
1,2,3-Trichlorobenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
1,2,3-Trichloropropane	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
1,2,4-Trichlorobenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
1,2,4-Trimethylbenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
1,2-Dibromo-3-chloropropane	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
1,2-Dibromoethane	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
1,2-Dichlorobenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
1,2-Dichloroethane	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
1,2-Dichloropropane	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
1,3,5-Trimethylbenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
1,3-Dichlorobenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
1,3-Dichloropropane	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
1,4-Dichlorobenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
2,2-Dichloropropane	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
2-Butanone	ND		42	µg/Kg-dry	1	12/27/2018 11:29 AM
2-Chlorotoluene	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
2-Hexanone	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
4-Chlorotoluene	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
4-Methyl-2-pentanone	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
Acetone	ND		42	µg/Kg-dry	1	12/27/2018 11:29 AM
Benzene	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
Bromobenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
Bromochloromethane	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
Bromodichloromethane	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
Bromoform	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
Bromomethane	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
Carbon disulfide	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
Carbon tetrachloride	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
Chlorobenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM

Note:

ALS Environmental

Date: 03-Jan-19

Client: The Mannik & Smith Group

Project: Mob Order #MS19-06 Swan Cleaners- Mansfield; PN.:

Work Order: 1812848

Sample ID: SC-SB-GP-15 (0-2')

Lab ID: 1812848-03

Collection Date: 12/19/2018 11:10 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroethane	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
Chloroform	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
Chloromethane	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
cis-1,2-Dichloroethene	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
cis-1,3-Dichloropropene	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
Dibromochloromethane	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
Dibromomethane	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
Dichlorodifluoromethane	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
Ethylbenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
Hexachlorobutadiene	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
Isopropylbenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
m,p-Xylene	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
Methyl tert-butyl ether	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
Methylene chloride	ND		17	µg/Kg-dry	1	12/27/2018 11:29 AM
Naphthalene	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
n-Butylbenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
n-Propylbenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
o-Xylene	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
p-Isopropyltoluene	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
sec-Butylbenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
Styrene	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
tert-Butylbenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
Tetrachloroethene	14		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
Toluene	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
trans-1,2-Dichloroethene	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
trans-1,3-Dichloropropene	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
Trichloroethene	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
Trichlorofluoromethane	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
Vinyl chloride	ND		4.2	µg/Kg-dry	1	12/27/2018 11:29 AM
Xylenes, Total	ND		8.4	µg/Kg-dry	1	12/27/2018 11:29 AM
Surr: 4-Bromofluorobenzene	101		62.7-159	%REC	1	12/27/2018 11:29 AM
Surr: Dibromofluoromethane	94.4		67.3-136	%REC	1	12/27/2018 11:29 AM
Surr: Toluene-d8	100		83-124	%REC	1	12/27/2018 11:29 AM

Note:

ALS Environmental

Date: 03-Jan-19

Client: The Mannik & Smith Group

Project: Mob Order #MS19-06 Swan Cleaners- Mansfield; PN.:

Work Order: 1812848

Sample ID: SC-SB-GP-16 (12-15')

Lab ID: 1812848-04

Collection Date: 12/19/2018 10:35 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE						
Moisture	14		SM2540B	% of sample	1	Analyst: CAA 12/27/2018
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep Date: 12/27/2018	Analyst: LAK
1,1,1,2-Tetrachloroethane	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
1,1,1-Trichloroethane	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
1,1,2,2-Tetrachloroethane	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
1,1,2-Trichloroethane	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
1,1-Dichloroethane	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
1,1-Dichloroethene	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
1,1-Dichloropropene	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
1,2,3-Trichlorobenzene	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
1,2,3-Trichloropropane	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
1,2,4-Trichlorobenzene	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
1,2,4-Trimethylbenzene	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
1,2-Dibromo-3-chloropropane	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
1,2-Dibromoethane	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
1,2-Dichlorobenzene	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
1,2-Dichloroethane	55		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
1,2-Dichloropropane	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
1,3,5-Trimethylbenzene	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
1,3-Dichlorobenzene	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
1,3-Dichloropropane	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
1,4-Dichlorobenzene	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
2,2-Dichloropropane	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
2-Butanone	ND		38	µg/Kg-dry	1	12/27/2018 11:52 AM
2-Chlorotoluene	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
2-Hexanone	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
4-Chlorotoluene	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
4-Methyl-2-pentanone	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
Acetone	46		38	µg/Kg-dry	1	12/27/2018 11:52 AM
Benzene	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
Bromobenzene	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
Bromochloromethane	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
Bromodichloromethane	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
Bromoform	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
Bromomethane	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
Carbon disulfide	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
Carbon tetrachloride	6.1		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
Chlorobenzene	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM

Note:

ALS Environmental

Date: 03-Jan-19

Client: The Mannik & Smith Group

Project: Mob Order #MS19-06 Swan Cleaners- Mansfield; PN.:

Work Order: 1812848

Sample ID: SC-SB-GP-16 (12-15')

Lab ID: 1812848-04

Collection Date: 12/19/2018 10:35 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroethane	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
Chloroform	77		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
Chloromethane	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
cis-1,2-Dichloroethene	ND		730	µg/Kg-dry	125	12/28/2018 10:30 AM
cis-1,3-Dichloropropene	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
Dibromochloromethane	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
Dibromomethane	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
Dichlorodifluoromethane	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
Ethylbenzene	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
Hexachlorobutadiene	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
Isopropylbenzene	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
m,p-Xylene	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
Methyl tert-butyl ether	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
Methylene chloride	ND		15	µg/Kg-dry	1	12/27/2018 11:52 AM
Naphthalene	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
n-Butylbenzene	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
n-Propylbenzene	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
o-Xylene	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
p-Isopropyltoluene	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
sec-Butylbenzene	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
Styrene	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
tert-Butylbenzene	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
Tetrachloroethene	110,000		7,300	µg/Kg-dry	1250	12/28/2018 11:42 AM
Toluene	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
trans-1,2-Dichloroethene	5.6		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
trans-1,3-Dichloropropene	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
Trichloroethene	2,500		730	µg/Kg-dry	125	12/28/2018 10:30 AM
Trichlorofluoromethane	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
Vinyl chloride	ND		3.8	µg/Kg-dry	1	12/27/2018 11:52 AM
Xylenes, Total	ND		7.7	µg/Kg-dry	1	12/27/2018 11:52 AM
Surr: 4-Bromofluorobenzene	97.8		62.7-159	%REC	1	12/27/2018 11:52 AM
Surr: Dibromofluoromethane	99.3		67.3-136	%REC	1	12/27/2018 11:52 AM
Surr: Toluene-d8	112		83-124	%REC	1	12/27/2018 11:52 AM

Note:

ALS Environmental

Date: 03-Jan-19

Client: The Mannik & Smith Group

Project: Mob Order #MS19-06 Swan Cleaners- Mansfield; PN.:

Work Order: 1812848

Sample ID: SC-SB-GP-17 (4-6')

Lab ID: 1812848-05

Collection Date: 12/19/2018 10:09 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE						
Moisture	15		SM2540B	% of sample	1	Analyst: CAA 12/27/2018
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep Date: 12/27/2018	Analyst: LAK
1,1,1,2-Tetrachloroethane	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
1,1,1-Trichloroethane	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
1,1,2,2-Tetrachloroethane	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
1,1,2-Trichloroethane	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
1,1-Dichloroethane	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
1,1-Dichloroethene	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
1,1-Dichloropropene	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
1,2,3-Trichlorobenzene	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
1,2,3-Trichloropropane	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
1,2,4-Trichlorobenzene	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
1,2,4-Trimethylbenzene	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
1,2-Dibromo-3-chloropropane	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
1,2-Dibromoethane	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
1,2-Dichlorobenzene	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
1,2-Dichloroethane	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
1,2-Dichloropropane	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
1,3,5-Trimethylbenzene	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
1,3-Dichlorobenzene	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
1,3-Dichloropropane	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
1,4-Dichlorobenzene	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
2,2-Dichloropropane	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
2-Butanone	ND		39	µg/Kg-dry	1	12/27/2018 12:15 PM
2-Chlorotoluene	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
2-Hexanone	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
4-Chlorotoluene	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
4-Methyl-2-pentanone	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
Acetone	ND		39	µg/Kg-dry	1	12/27/2018 12:15 PM
Benzene	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
Bromobenzene	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
Bromochloromethane	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
Bromodichloromethane	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
Bromoform	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
Bromomethane	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
Carbon disulfide	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
Carbon tetrachloride	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
Chlorobenzene	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM

Note:

ALS Environmental

Date: 03-Jan-19

Client: The Mannik & Smith Group

Project: Mob Order #MS19-06 Swan Cleaners- Mansfield; PN.:

Work Order: 1812848

Sample ID: SC-SB-GP-17 (4-6')

Lab ID: 1812848-05

Collection Date: 12/19/2018 10:09 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroethane	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
Chloroform	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
Chloromethane	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
cis-1,2-Dichloroethene	2,000		730	µg/Kg-dry	125	12/28/2018 12:06 PM
cis-1,3-Dichloropropene	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
Dibromochloromethane	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
Dibromomethane	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
Dichlorodifluoromethane	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
Ethylbenzene	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
Hexachlorobutadiene	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
Isopropylbenzene	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
m,p-Xylene	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
Methyl tert-butyl ether	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
Methylene chloride	ND		16	µg/Kg-dry	1	12/27/2018 12:15 PM
Naphthalene	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
n-Butylbenzene	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
n-Propylbenzene	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
o-Xylene	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
p-Isopropyltoluene	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
sec-Butylbenzene	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
Styrene	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
tert-Butylbenzene	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
Tetrachloroethene	190,000		37,000	µg/Kg-dry	6250	12/28/2018 10:55 AM
Toluene	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
trans-1,2-Dichloroethene	7.5		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
trans-1,3-Dichloropropene	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
Trichloroethene	11,000		730	µg/Kg-dry	125	12/28/2018 12:06 PM
Trichlorofluoromethane	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
Vinyl chloride	ND		3.9	µg/Kg-dry	1	12/27/2018 12:15 PM
Xylenes, Total	ND		7.8	µg/Kg-dry	1	12/27/2018 12:15 PM
Surr: 4-Bromofluorobenzene	94.2		62.7-159	%REC	1	12/27/2018 12:15 PM
Surr: Dibromofluoromethane	96.9		67.3-136	%REC	1	12/27/2018 12:15 PM
Surr: Toluene-d8	102		83-124	%REC	1	12/27/2018 12:15 PM

Note:

ALS Environmental

Date: 03-Jan-19

Client: The Mannik & Smith Group

Project: Mob Order #MS19-06 Swan Cleaners- Mansfield; PN.:

Work Order: 1812848

Sample ID: SC-SB-GP-18 (12-15')

Lab ID: 1812848-06

Collection Date: 12/19/2018 10:55 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE						
Moisture	17		SM2540B	% of sample	1	Analyst: CAA 12/27/2018
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep Date: 12/27/2018	Analyst: LAK
1,1,1,2-Tetrachloroethane	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
1,1,1-Trichloroethane	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
1,1,2,2-Tetrachloroethane	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
1,1,2-Trichloroethane	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
1,1-Dichloroethane	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
1,1-Dichloroethene	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
1,1-Dichloropropene	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
1,2,3-Trichlorobenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
1,2,3-Trichloropropane	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
1,2,4-Trichlorobenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
1,2,4-Trimethylbenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
1,2-Dibromo-3-chloropropane	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
1,2-Dibromoethane	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
1,2-Dichlorobenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
1,2-Dichloroethane	50		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
1,2-Dichloropropane	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
1,3,5-Trimethylbenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
1,3-Dichlorobenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
1,3-Dichloropropane	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
1,4-Dichlorobenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
2,2-Dichloropropane	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
2-Butanone	ND		42	µg/Kg-dry	1	12/27/2018 12:38 PM
2-Chlorotoluene	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
2-Hexanone	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
4-Chlorotoluene	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
4-Methyl-2-pentanone	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
Acetone	ND		42	µg/Kg-dry	1	12/27/2018 12:38 PM
Benzene	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
Bromobenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
Bromochloromethane	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
Bromodichloromethane	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
Bromoform	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
Bromomethane	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
Carbon disulfide	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
Carbon tetrachloride	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
Chlorobenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM

Note:

ALS Environmental

Date: 03-Jan-19

Client: The Mannik & Smith Group

Project: Mob Order #MS19-06 Swan Cleaners- Mansfield; PN.:

Work Order: 1812848

Sample ID: SC-SB-GP-18 (12-15')

Lab ID: 1812848-06

Collection Date: 12/19/2018 10:55 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroethane	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
Chloroform	26		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
Chloromethane	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
cis-1,2-Dichloroethene	7.8		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
cis-1,3-Dichloropropene	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
Dibromochloromethane	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
Dibromomethane	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
Dichlorodifluoromethane	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
Ethylbenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
Hexachlorobutadiene	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
Isopropylbenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
m,p-Xylene	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
Methyl tert-butyl ether	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
Methylene chloride	ND		17	µg/Kg-dry	1	12/27/2018 12:38 PM
Naphthalene	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
n-Butylbenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
n-Propylbenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
o-Xylene	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
p-Isopropyltoluene	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
sec-Butylbenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
Styrene	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
tert-Butylbenzene	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
Tetrachloroethene	76,000		7,500	µg/Kg-dry	1250	12/28/2018 11:18 AM
Toluene	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
trans-1,2-Dichloroethene	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
trans-1,3-Dichloropropene	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
Trichloroethene	89		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
Trichlorofluoromethane	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
Vinyl chloride	ND		4.2	µg/Kg-dry	1	12/27/2018 12:38 PM
Xylenes, Total	ND		8.3	µg/Kg-dry	1	12/27/2018 12:38 PM
Surr: 4-Bromofluorobenzene	125		62.7-159	%REC	1	12/27/2018 12:38 PM
Surr: Dibromofluoromethane	103		67.3-136	%REC	1	12/27/2018 12:38 PM
Surr: Toluene-d8	101		83-124	%REC	1	12/27/2018 12:38 PM

Note:

ALS Environmental

Date: 03-Jan-19

Client: The Mannik & Smith Group

Project: Mob Order #MS19-06 Swan Cleaners- Mansfield; PN.:

Work Order: 1812848

Sample ID: SC-SB-GP-19 (10-12')

Lab ID: 1812848-07

Collection Date: 12/19/2018 11:20 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			SM2540B			Analyst: CAA
Moisture	13		% of sample		1	12/27/2018
VOLATILE ORGANIC COMPOUNDS			SW8260B		Prep Date: 12/27/2018	Analyst: LAK
1,1,1,2-Tetrachloroethane	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
1,1,1-Trichloroethane	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
1,1,2,2-Tetrachloroethane	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
1,1,2-Trichloroethane	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
1,1-Dichloroethane	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
1,1-Dichloroethene	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
1,1-Dichloropropene	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
1,2,3-Trichlorobenzene	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
1,2,3-Trichloropropane	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
1,2,4-Trichlorobenzene	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
1,2,4-Trimethylbenzene	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
1,2-Dibromo-3-chloropropane	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
1,2-Dibromoethane	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
1,2-Dichlorobenzene	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
1,2-Dichloroethane	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
1,2-Dichloropropane	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
1,3,5-Trimethylbenzene	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
1,3-Dichlorobenzene	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
1,3-Dichloropropane	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
1,4-Dichlorobenzene	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
2,2-Dichloropropane	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
2-Butanone	ND		62	µg/Kg-dry	1	12/27/2018 01:01 PM
2-Chlorotoluene	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
2-Hexanone	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
4-Chlorotoluene	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
4-Methyl-2-pentanone	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
Acetone	230		62	µg/Kg-dry	1	12/27/2018 01:01 PM
Benzene	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
Bromobenzene	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
Bromochloromethane	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
Bromodichloromethane	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
Bromoform	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
Bromomethane	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
Carbon disulfide	16		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
Carbon tetrachloride	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
Chlorobenzene	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM

Note:

ALS Environmental

Date: 03-Jan-19

Client: The Mannik & Smith Group

Project: Mob Order #MS19-06 Swan Cleaners- Mansfield; PN.:

Work Order: 1812848

Sample ID: SC-SB-GP-19 (10-12')

Lab ID: 1812848-07

Collection Date: 12/19/2018 11:20 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroethane	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
Chloroform	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
Chloromethane	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
cis-1,2-Dichloroethene	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
cis-1,3-Dichloropropene	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
Dibromochloromethane	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
Dibromomethane	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
Dichlorodifluoromethane	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
Ethylbenzene	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
Hexachlorobutadiene	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
Isopropylbenzene	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
m,p-Xylene	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
Methyl tert-butyl ether	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
Methylene chloride	ND		25	µg/Kg-dry	1	12/27/2018 01:01 PM
Naphthalene	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
n-Butylbenzene	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
n-Propylbenzene	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
o-Xylene	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
p-Isopropyltoluene	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
sec-Butylbenzene	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
Styrene	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
tert-Butylbenzene	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
Tetrachloroethene	180		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
Toluene	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
trans-1,2-Dichloroethene	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
trans-1,3-Dichloropropene	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
Trichloroethene	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
Trichlorofluoromethane	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
Vinyl chloride	ND		6.2	µg/Kg-dry	1	12/27/2018 01:01 PM
Xylenes, Total	ND		12	µg/Kg-dry	1	12/27/2018 01:01 PM
Surr: 4-Bromofluorobenzene	116		62.7-159	%REC	1	12/27/2018 01:01 PM
Surr: Dibromofluoromethane	102		67.3-136	%REC	1	12/27/2018 01:01 PM
Surr: Toluene-d8	93.3		83-124	%REC	1	12/27/2018 01:01 PM

Note:

ALS Environmental

Date: 03-Jan-19

Client: The Mannik & Smith Group

Project: Mob Order #MS19-06 Swan Cleaners- Mansfield; PN.:

Work Order: 1812848

Sample ID: SC-SB-GP-20 (8-10')

Lab ID: 1812848-08

Collection Date: 12/19/2018 11:50 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE						
Moisture	13		SM2540B	% of sample	1	Analyst: CAA 12/27/2018
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep Date: 12/27/2018	Analyst: LAK
1,1,1,2-Tetrachloroethane	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
1,1,1-Trichloroethane	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
1,1,2,2-Tetrachloroethane	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
1,1,2-Trichloroethane	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
1,1-Dichloroethane	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
1,1-Dichloroethene	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
1,1-Dichloropropene	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
1,2,3-Trichlorobenzene	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
1,2,3-Trichloropropane	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
1,2,4-Trichlorobenzene	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
1,2,4-Trimethylbenzene	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
1,2-Dibromo-3-chloropropane	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
1,2-Dibromoethane	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
1,2-Dichlorobenzene	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
1,2-Dichloroethane	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
1,2-Dichloropropane	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
1,3,5-Trimethylbenzene	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
1,3-Dichlorobenzene	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
1,3-Dichloropropane	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
1,4-Dichlorobenzene	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
2,2-Dichloropropane	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
2-Butanone	ND		41	µg/Kg-dry	1	12/27/2018 01:25 PM
2-Chlorotoluene	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
2-Hexanone	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
4-Chlorotoluene	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
4-Methyl-2-pentanone	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
Acetone	ND		41	µg/Kg-dry	1	12/27/2018 01:25 PM
Benzene	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
Bromobenzene	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
Bromochloromethane	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
Bromodichloromethane	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
Bromoform	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
Bromomethane	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
Carbon disulfide	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
Carbon tetrachloride	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
Chlorobenzene	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM

Note:

ALS Environmental

Date: 03-Jan-19

Client: The Mannik & Smith Group

Project: Mob Order #MS19-06 Swan Cleaners- Mansfield; PN.:

Work Order: 1812848

Sample ID: SC-SB-GP-20 (8-10')

Lab ID: 1812848-08

Collection Date: 12/19/2018 11:50 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroethane	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
Chloroform	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
Chloromethane	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
cis-1,2-Dichloroethene	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
cis-1,3-Dichloropropene	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
Dibromochloromethane	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
Dibromomethane	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
Dichlorodifluoromethane	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
Ethylbenzene	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
Hexachlorobutadiene	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
Isopropylbenzene	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
m,p-Xylene	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
Methyl tert-butyl ether	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
Methylene chloride	ND		16	µg/Kg-dry	1	12/27/2018 01:25 PM
Naphthalene	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
n-Butylbenzene	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
n-Propylbenzene	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
o-Xylene	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
p-Isopropyltoluene	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
sec-Butylbenzene	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
Styrene	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
tert-Butylbenzene	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
Tetrachloroethene	11		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
Toluene	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
trans-1,2-Dichloroethene	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
trans-1,3-Dichloropropene	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
Trichloroethene	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
Trichlorofluoromethane	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
Vinyl chloride	ND		4.1	µg/Kg-dry	1	12/27/2018 01:25 PM
Xylenes, Total	ND		8.2	µg/Kg-dry	1	12/27/2018 01:25 PM
Surr: 4-Bromofluorobenzene	145		62.7-159	%REC	1	12/27/2018 01:25 PM
Surr: Dibromofluoromethane	106		67.3-136	%REC	1	12/27/2018 01:25 PM
Surr: Toluene-d8	99.1		83-124	%REC	1	12/27/2018 01:25 PM

Note:

ALS Environmental

Date: 03-Jan-19

Client: The Mannik & Smith Group

Project: Mob Order #MS19-06 Swan Cleaners- Mansfield; PN.:

Work Order: 1812848

Sample ID: SC-SB-GP-22 (2-4')

Lab ID: 1812848-09

Collection Date: 12/19/2018 12:30 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE						
Moisture	16		SM2540B	% of sample	1	Analyst: CAA 12/27/2018
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep Date: 12/27/2018	Analyst: LAK
1,1,1,2-Tetrachloroethane	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
1,1,1-Trichloroethane	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
1,1,2,2-Tetrachloroethane	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
1,1,2-Trichloroethane	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
1,1-Dichloroethane	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
1,1-Dichloroethene	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
1,1-Dichloropropene	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
1,2,3-Trichlorobenzene	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
1,2,3-Trichloropropane	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
1,2,4-Trichlorobenzene	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
1,2,4-Trimethylbenzene	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
1,2-Dibromo-3-chloropropane	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
1,2-Dibromoethane	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
1,2-Dichlorobenzene	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
1,2-Dichloroethane	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
1,2-Dichloropropane	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
1,3,5-Trimethylbenzene	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
1,3-Dichlorobenzene	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
1,3-Dichloropropane	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
1,4-Dichlorobenzene	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
2,2-Dichloropropane	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
2-Butanone	ND		40	µg/Kg-dry	1	12/27/2018 01:48 PM
2-Chlorotoluene	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
2-Hexanone	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
4-Chlorotoluene	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
4-Methyl-2-pentanone	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
Acetone	ND		40	µg/Kg-dry	1	12/27/2018 01:48 PM
Benzene	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
Bromobenzene	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
Bromochloromethane	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
Bromodichloromethane	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
Bromoform	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
Bromomethane	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
Carbon disulfide	9.4		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
Carbon tetrachloride	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
Chlorobenzene	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM

Note:

ALS Environmental

Date: 03-Jan-19

Client: The Mannik & Smith Group

Project: Mob Order #MS19-06 Swan Cleaners- Mansfield; PN.:

Work Order: 1812848

Sample ID: SC-SB-GP-22 (2-4')

Lab ID: 1812848-09

Collection Date: 12/19/2018 12:30 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroethane	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
Chloroform	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
Chloromethane	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
cis-1,2-Dichloroethene	76		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
cis-1,3-Dichloropropene	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
Dibromochloromethane	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
Dibromomethane	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
Dichlorodifluoromethane	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
Ethylbenzene	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
Hexachlorobutadiene	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
Isopropylbenzene	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
m,p-Xylene	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
Methyl tert-butyl ether	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
Methylene chloride	ND		16	µg/Kg-dry	1	12/27/2018 01:48 PM
Naphthalene	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
n-Butylbenzene	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
n-Propylbenzene	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
o-Xylene	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
p-Isopropyltoluene	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
sec-Butylbenzene	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
Styrene	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
tert-Butylbenzene	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
Tetrachloroethene	74		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
Toluene	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
trans-1,2-Dichloroethene	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
trans-1,3-Dichloropropene	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
Trichloroethene	42		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
Trichlorofluoromethane	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
Vinyl chloride	ND		4.0	µg/Kg-dry	1	12/27/2018 01:48 PM
Xylenes, Total	ND		7.9	µg/Kg-dry	1	12/27/2018 01:48 PM
Surr: 4-Bromofluorobenzene	100		62.7-159	%REC	1	12/27/2018 01:48 PM
Surr: Dibromofluoromethane	96.4		67.3-136	%REC	1	12/27/2018 01:48 PM
Surr: Toluene-d8	104		83-124	%REC	1	12/27/2018 01:48 PM

Note:

ALS Environmental

Date: 03-Jan-19

Client: The Mannik & Smith Group

Work Order: 1812848

Project: Mob Order #MS19-06 Swan Cleaners- Mansfield; P

QC BATCH REPORT

Batch ID: R160191 Instrument ID: VMS2 Method: SW8260B

MBLK		Sample ID: mblk-R160191			Units: µg/Kg		Analysis Date: 12/27/2018 09:54 AM				
Client ID:			Run ID: VMS2_181227A			SeqNo: 1895354		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,1,1,2-Tetrachloroethane	ND	5.0									
1,1,1-Trichloroethane	ND	5.0									
1,1,2,2-Tetrachloroethane	ND	5.0									
1,1,2-Trichloroethane	ND	5.0									
1,1-Dichloroethane	ND	5.0									
1,1-Dichloroethene	ND	5.0									
1,1-Dichloropropene	ND	5.0									
1,2,3-Trichlorobenzene	ND	5.0									
1,2,3-Trichloropropane	ND	5.0									
1,2,4-Trichlorobenzene	ND	5.0									
1,2,4-Trimethylbenzene	ND	5.0									
1,2-Dibromo-3-chloropropane	ND	5.0									
1,2-Dibromoethane	ND	5.0									
1,2-Dichlorobenzene	ND	5.0									
1,2-Dichloroethane	ND	5.0									
1,2-Dichloropropane	ND	5.0									
1,3,5-Trimethylbenzene	ND	5.0									
1,3-Dichlorobenzene	ND	5.0									
1,3-Dichloropropane	ND	5.0									
1,4-Dichlorobenzene	ND	5.0									
2,2-Dichloropropane	ND	5.0									
2-Butanone	ND	50									
2-Chlorotoluene	ND	5.0									
2-Hexanone	ND	5.0									
4-Chlorotoluene	ND	5.0									
4-Methyl-2-pentanone	ND	5.0									
Acetone	ND	50									
Benzene	ND	5.0									
Bromobenzene	ND	5.0									
Bromochloromethane	ND	5.0									
Bromodichloromethane	ND	5.0									
Bromoform	ND	5.0									
Bromomethane	ND	5.0									
Carbon disulfide	ND	5.0									
Carbon tetrachloride	ND	5.0									
Chlorobenzene	ND	5.0									
Chloroethane	ND	5.0									
Chloroform	ND	5.0									
Chloromethane	ND	5.0									
cis-1,2-Dichloroethene	ND	5.0									
cis-1,3-Dichloropropene	ND	5.0									

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik & Smith Group
Work Order: 1812848
Project: Mob Order #MS19-06 Swan Cleaners- Mansfield; P

QC BATCH REPORT

Batch ID: R160191		Instrument ID: VMS2		Method: SW8260B				
Dibromochloromethane	ND	5.0						
Dibromomethane	ND	5.0						
Dichlorodifluoromethane	ND	5.0						
Ethylbenzene	ND	5.0						
Hexachlorobutadiene	ND	5.0						
Isopropylbenzene	ND	5.0						
m,p-Xylene	ND	5.0						
Methyl tert-butyl ether	ND	5.0						
Methylene chloride	ND	20						
Naphthalene	ND	5.0						
n-Butylbenzene	ND	5.0						
n-Propylbenzene	ND	5.0						
o-Xylene	ND	5.0						
p-Isopropyltoluene	ND	5.0						
sec-Butylbenzene	ND	5.0						
Styrene	ND	5.0						
tert-Butylbenzene	ND	5.0						
Tetrachloroethene	ND	5.0						
Toluene	ND	5.0						
trans-1,2-Dichloroethene	ND	5.0						
trans-1,3-Dichloropropene	ND	5.0						
Trichloroethene	ND	5.0						
Trichlorofluoromethane	ND	5.0						
Vinyl chloride	ND	5.0						
Xylenes, Total	ND	10						
<i>Surr: 4-Bromofluorobenzene</i>	47.56	0	50	0	95.1	62.7-159	0	
<i>Surr: Dibromofluoromethane</i>	44.08	0	50	0	88.2	67.3-136	0	
<i>Surr: Toluene-d8</i>	48.58	0	50	0	97.2	83-124	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik & Smith Group
Work Order: 1812848
Project: Mob Order #MS19-06 Swan Cleaners- Mansfield; P

QC BATCH REPORT

Batch ID: R160191 Instrument ID: VMS2 Method: SW8260B

LCS		Sample ID: LCS-R160191		Units: µg/Kg		Analysis Date: 12/27/2018 07:23 AM				
Client ID:		Run ID: VMS2_181227A		SeqNo: 1895351		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	43.02	5.0	50	0	86	53.6-149	0			
1,1-Dichloroethene	35.32	5.0	50	0	70.6	38.8-176	0			
1,2-Dichloroethane	34.91	5.0	50	0	69.8	54.4-145	0			
1,3-Dichlorobenzene	47.8	5.0	50	0	95.6	54.2-137	0			
1,4-Dichlorobenzene	46.57	5.0	50	0	93.1	52.8-135	0			
Benzene	45.07	5.0	50	0	90.1	56-148	0			
Carbon tetrachloride	44.34	5.0	50	0	88.7	51.9-151	0			
Chlorobenzene	44.61	5.0	50	0	89.2	55.4-137	0			
Chloroform	41.27	5.0	50	0	82.5	51.1-147	0			
cis-1,2-Dichloroethene	41.55	5.0	50	0	83.1	47.6-149	0			
Ethylbenzene	44.14	5.0	50	0	88.3	55.8-142	0			
m,p-Xylene	85.98	5.0	100	0	86	57.6-141	0			
Styrene	45.37	5.0	50	0	90.7	59.6-143	0			
Tetrachloroethene	43.06	5.0	50	0	86.1	56.2-160	0			
Toluene	43.55	5.0	50	0	87.1	56-143	0			
Trichloroethene	45.52	5.0	50	0	91	56.5-143	0			
Surr: 4-Bromofluorobenzene	49.23	0	50	0	98.5	62.7-159	0			
Surr: Dibromofluoromethane	44.1	0	50	0	88.2	67.3-136	0			
Surr: Toluene-d8	47.48	0	50	0	95	83-124	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik & Smith Group
 Work Order: 1812848
 Project: Mob Order #MS19-06 Swan Cleaners- Mansfield; P

QC BATCH REPORT

Batch ID: R160191 Instrument ID: VMS2 Method: SW8260B

MS		Sample ID: 1812777-06A MS				Units: µg/Kg		Analysis Date: 12/27/2018 08:46 AM		
Client ID:		Run ID: VMS2_181227A				SeqNo: 1895352		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	43.75	5.0	50	0	87.5	66.9-140	0			
1,1-Dichloroethene	36.44	5.0	50	0	72.9	41.4-161	0			
1,2-Dichloroethane	36.64	5.0	50	0	73.3	58.9-137	0			
1,3-Dichlorobenzene	48.02	5.0	50	0	96	56.3-126	0			
1,4-Dichlorobenzene	46.54	5.0	50	0	93.1	58.3-122	0			
Benzene	45.35	5.0	50	0	90.7	35.8-162	0			
Carbon tetrachloride	45.01	5.0	50	0	90	53.2-137	0			
Chlorobenzene	44.67	5.0	50	0	89.3	65.6-137	0			
Chloroform	40.95	5.0	50	0	81.9	58-130	0			
cis-1,2-Dichloroethene	40.97	5.0	50	0	81.9	52.9-138	0			
Ethylbenzene	44.97	5.0	50	0	89.9	57.5-134	0			
m,p-Xylene	88.07	5.0	100	0	88.1	56.4-135	0			
Styrene	44.74	5.0	50	0	89.5	60.9-135	0			
Tetrachloroethene	43.51	5.0	50	0	87	52.1-160	0			
Toluene	43.44	5.0	50	0	86.9	67.7-135	0			
Trichloroethene	46.43	5.0	50	0	92.9	56.5-136	0			
Surr: 4-Bromofluorobenzene	48.58	0	50	0	97.2	62.7-159	0			
Surr: Dibromofluoromethane	43.37	0	50	0	86.7	67.3-136	0			
Surr: Toluene-d8	47.96	0	50	0	95.9	83-124	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik & Smith Group
 Work Order: 1812848
 Project: Mob Order #MS19-06 Swan Cleaners- Mansfield; P

QC BATCH REPORT

Batch ID: R160191 Instrument ID: VMS2 Method: SW8260B

MSD		Sample ID: 1812777-06A MSD		Units: µg/Kg		Analysis Date: 12/27/2018 09:09 AM				
Client ID:		Run ID: VMS2_181227A		SeqNo: 1895353		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	43.85	5.0	50	0	87.7	66.9-140	43.75	0.228	31.2	
1,1-Dichloroethene	35.87	5.0	50	0	71.7	41.4-161	36.44	1.58	38.1	
1,2-Dichloroethane	36.55	5.0	50	0	73.1	58.9-137	36.64	0.246	26.2	
1,3-Dichlorobenzene	46.71	5.0	50	0	93.4	56.3-126	48.02	2.77	21	
1,4-Dichlorobenzene	45.47	5.0	50	0	90.9	58.3-122	46.54	2.33	28.7	
Benzene	44.02	5.0	50	0	88	35.8-162	45.35	2.98	23.6	
Carbon tetrachloride	45.77	5.0	50	0	91.5	53.2-137	45.01	1.67	32.3	
Chlorobenzene	44.55	5.0	50	0	89.1	65.6-137	44.67	0.269	20	
Chloroform	41.91	5.0	50	0	83.8	58-130	40.95	2.32	28.2	
cis-1,2-Dichloroethene	41.13	5.0	50	0	82.3	52.9-138	40.97	0.39	23.7	
Ethylbenzene	44.55	5.0	50	0	89.1	57.5-134	44.97	0.938	24.9	
m,p-Xylene	87.12	5.0	100	0	87.1	56.4-135	88.07	1.08	25.1	
Styrene	43.94	5.0	50	0	87.9	60.9-135	44.74	1.8	22.8	
Tetrachloroethene	42.07	5.0	50	0	84.1	52.1-160	43.51	3.37	24.7	
Toluene	43.27	5.0	50	0	86.5	67.7-135	43.44	0.392	20	
Trichloroethene	44.81	5.0	50	0	89.6	56.5-136	46.43	3.55	20	
Surr: 4-Bromofluorobenzene	48.69	0	50	0	97.4	62.7-159	48.58	0.226		
Surr: Dibromofluoromethane	44.23	0	50	0	88.5	67.3-136	43.37	1.96		
Surr: Toluene-d8	48.63	0	50	0	97.3	83-124	47.96	1.39		

The following samples were analyzed in this batch:

1812848-01A	1812848-02A	1812848-03A
1812848-04A	1812848-05A	1812848-06A
1812848-07A	1812848-08A	1812848-09A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik & Smith Group
 Work Order: 1812848
 Project: Mob Order #MS19-06 Swan Cleaners- Mansfield; P

QC BATCH REPORT

Batch ID: R160286 Instrument ID: VMS1 Method: SW8260B

MBLK		Sample ID: MBLK-R160286				Units: µg/L		Analysis Date: 12/28/2018 09:17 AM		
Client ID:		Run ID: VMS1_181228A				SeqNo: 1896907		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	ND	5.0								
Tetrachloroethene	ND	5.0								
Trichloroethene	ND	5.0								
Surr: 4-Bromofluorobenzene	53.55	0	50	0	107	61-131	0			
Surr: Dibromofluoromethane	49.94	0	50	0	99.9	87-126	0			
Surr: Toluene-d8	49.94	0	50	0	99.9	84-111	0			

LCS		Sample ID: LCS-R160286				Units: µg/L		Analysis Date: 12/28/2018 07:39 AM		
Client ID:		Run ID: VMS1_181228A				SeqNo: 1896904		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	47.81	5.0	50	0	95.6	49.7-138	0			
Tetrachloroethene	46.91	5.0	50	0	93.8	37.3-139	0			
Trichloroethene	45.13	5.0	50	0	90.3	45.9-140	0			
Surr: 4-Bromofluorobenzene	53.1	0	50	0	106	61-131	0			
Surr: Dibromofluoromethane	50.55	0	50	0	101	87-126	0			
Surr: Toluene-d8	47.78	0	50	0	95.6	84-111	0			

MS		Sample ID: 1812828-01A MS				Units: µg/L		Analysis Date: 12/28/2018 08:07 AM		
Client ID:		Run ID: VMS1_181228A				SeqNo: 1896905		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	46.85	5.0	50	0	93.7	35.2-150	0			
Tetrachloroethene	43.02	5.0	50	0	86	55.2-134	0			
Trichloroethene	42.51	5.0	50	0	85	29.1-153	0			
Surr: 4-Bromofluorobenzene	51.53	0	50	0	103	61-131	0			
Surr: Dibromofluoromethane	49.96	0	50	0	99.9	87-126	0			
Surr: Toluene-d8	47.6	0	50	0	95.2	84-111	0			

MSD		Sample ID: 1812828-01A MSD				Units: µg/L		Analysis Date: 12/28/2018 08:31 AM		
Client ID:		Run ID: VMS1_181228A				SeqNo: 1896906		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	46.81	5.0	50	0	93.6	35.2-150	46.85	0.0854	21	
Tetrachloroethene	41.53	5.0	50	0	83.1	55.2-134	43.02	3.52	20	
Trichloroethene	42.61	5.0	50	0	85.2	29.1-153	42.51	0.235	20	
Surr: 4-Bromofluorobenzene	51.65	0	50	0	103	61-131	51.53	0.233		
Surr: Dibromofluoromethane	50.56	0	50	0	101	87-126	49.96	1.19		
Surr: Toluene-d8	48.48	0	50	0	97	84-111	47.6	1.83		

The following samples were analyzed in this batch:

1812848-04A 1812848-05A 1812848-06A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Mannik & Smith Group
Work Order: 1812848
Project: Mob Order #MS19-06 Swan Cleaners- Mansfield; P

QC BATCH REPORT

Client: The Mannik & Smith Group
Project: Mob Order #MS19-06 Swan Cleaners- Mansfield; PN.:
WorkOrder: 1812848

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
% of sample	
µg/Kg-dry	

Sample Receipt Checklist

Client Name: MANNIK-MAUMEE

Date/Time Received: 21-Dec-18 16:09

Work Order: 1812848

Received by: SNH

Checklist completed by: Stephanie Harrington

22-Dec-18

Reviewed by: Rob Nieman

27-Dec-18

eSignature

Date

eSignature

Date

Matrices:

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Temperature(s)/Thermometer(s):

3.6

Cooler(s)/Kit(s):

Water - VOA vials have zero headspace?

Yes ☐ No ☐ No VOA vials submitted ☒

Water - pH acceptable upon receipt?

Yes ☐ No ☐ N/A ☒

pH adjusted?

Yes ☐ No ☐ N/A ☒

pH adjusted by:

-

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



Ship To: **ALS Environmental**
4388 Glendale Milford Rd.
Cincinnati, Ohio 45242
(513) 733-5336
Phone: (513) 733-5347
Fax:

Field Chain-of-Custody Record

Page 1 of 1

51628

REV 10/2017

Date: <u>12/19/2018</u>		Purchase Order No.: _____	
Company Name: <u>The Mannick + Smith Group</u>		Project No.: <u>ODAS0002-50</u>	
Address: <u>1800 Indian Wood Circle</u>		Sampling Site: <u>Mob Order #MS19-06</u>	
<u>Maumee</u> City	<u>OH 43537</u> State Zip	<u>Sun Cleaners - Mansfield</u>	
Person to Contact: <u>Matt Pesci</u>		Billing Address (if different): <u>Ohio EPA</u>	
Email Address: <u>mpesci@mannicksmithgroup.com</u>		<u>DERR</u>	
Telephone (419): <u>891-2222 ext. 2088</u>		<u>Lazarus Government Center, PO Box 1049</u>	
Alternate Contact: _____		<u>Columbus, OH 43216-1049</u>	
ALS Lab ID	Sample ID / Description	Date	Time
<u>01</u>	<u>SC-SB-GP-13 (0-2')</u>	<u>12/19/18</u>	<u>10:48</u>
<u>02</u>	<u>SC-SB-GP-14 (0-2')</u>	<u>12/19/18</u>	<u>10:15</u>
<u>03</u>	<u>SC-SB-GP-15 (0-2')</u>	<u>12/19/18</u>	<u>11:10</u>
<u>04</u>	<u>SC-SB-GP-16 (12-15')</u>	<u>12/19/18</u>	<u>10:55</u>
<u>05</u>	<u>SC-SB-GP-17 (4-6')</u>	<u>12/19/18</u>	<u>10:09</u>
<u>06</u>	<u>SC-SB-GP-18 (12-15')</u>	<u>12/19/18</u>	<u>10:55</u>
<u>07</u>	<u>SC-SB-GP-19 (10-12')</u>	<u>12/19/18</u>	<u>11:20</u>
<u>08</u>	<u>SC-SB-GP-20 (8-10')</u>	<u>12/19/18</u>	<u>11:50</u>
<u>09</u>	<u>SC-SB-GP-22 (2-4')</u>	<u>12/19/18</u>	<u>12:30</u>
Notes:			

REGULAR <input type="checkbox"/> Status	RUSH <input checked="" type="checkbox"/> Status	RESULTS REQUIRED BY: (Date)	CONTACT ALS ENVIRONMENTAL PRIOR TO SENDING SAMPLES
OH VAP: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	BUST: <input type="checkbox"/> YES <input type="checkbox"/> NO	NELAC: <input type="checkbox"/> YES <input type="checkbox"/> NO	
ANALYSIS REQUESTED			
Preservation Key #	Sample Type / Matrix Key Abbr.	# of Sample Containers	
8	S	4	VOC, 8260
8	S	4	
8	S	4	
8	S	4	
8	S	4	
8	S	4	
8	S	4	
8	S	4	
8	S	4	
8	S	4	
8	S	4	

Matrix Key:	A - Air	B - Bulk	S - Soil	W - Water
ALS LAB USE ONLY				
COOLER TEMP: <u>30</u> °C	TAKEN WITH IIR: <u>119063</u>	ICE PACK: <u>119063</u>		
COOLING METHOD: <u>NONE</u>	COOLER: <u>CLIENT</u>	DRY ICE: <u>FEDEX</u>		
DELIVERY METHOD: <u>STD MAIL</u>	PRTY MAIL: <u>ALS</u>	COURIER: <u>OTHER</u>		
CUSTODY SEALS: <u>NOT REQUIRED</u>	COOLER: <u>PACKAGE</u>	SAMPLES: <u>SAMPLES</u>		
PH ADJUSTMENTS:				

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.

Relinquished By: <u>Matt Pesci</u> (Signature)	Time / Date: <u>12/20/18 17:00</u>	Received By: <u>Ex</u> (Signature)	Time / Date: <u>12/21/18 10:00</u>
Relinquished By: _____ (Signature)	Time / Date: _____	Received By: _____ (Signature)	Time / Date: _____
Relinquished By: _____ (Signature)	Time / Date: _____	Received By: _____ (Signature)	Time / Date: _____

APPENDIX C
VISL CALCULATOR SPREADSHEETS



EPA-OLEM VAPOR INTRUSION ASSESSMENT

Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.5.1 (May 2016 RSLs)

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Commercial	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR_SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ_SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

Chestnut Street Property, Loveland, Ohio - maximum of all sampling locations

CAS	Chemical Name	Site Sub-slab or Exterior Soil Gas Concentration		Calculated Indoor Air Concentration		VI Carcinogenic Risk	VI Hazard	
		Csg	Cia	Cia	CR		CR	HQ
67-64-1	Acetone	1.6E+02	4.65E+00	No IUR	No IUR	3.4E-05		
71-43-2	Benzene	2.1E+02	6.21E+00	3.9E-06	3.9E-06	4.7E-02		
100-44-7	Benzyl Chloride	7.4E+01	2.27E+00	8.8E-06	8.8E-06	5.0E-01		
106-99-0	Butadiene, 1,3-	2.9E+01	8.76E-01	2.1E-06	2.1E-06	1.0E-01		
75-15-0	Carbon Disulfide	8.3E+02	2.48E+01	No IUR	No IUR	8.1E-03		
56-23-5	Carbon Tetrachloride	2.6E+06	7.88E+04	3.8E-02	3.8E-02	1.8E+02		
67-66-3	Chloroform	2.0E+05	6.12E+03	1.1E-02	1.1E-02	1.4E+01		
74-87-3	Chloromethane	1.7E+00	5.01E-02	No IUR	No IUR	1.3E-04		
98-82-8	Cumene	1.0E+03	3.12E+01	No IUR	No IUR	1.8E-02		
110-82-7	Cyclohexane	3.3E+04	9.78E+02	No IUR	No IUR	3.7E-02		
75-71-8	Dichlorodifluoromethane	2.9E+00	8.61E-02	No IUR	No IUR	2.0E-04		
75-34-3	Dichloroethane, 1,1-	4.1E+01	1.22E+00	1.6E-07	No IUR	1.2E-02		
75-35-4	Dichloroethylene, 1,1-	3.6E+02	1.08E+01	No IUR	No IUR	1.2E-02		
141-78-6	Ethyl Acetate	3.1E+01	9.42E-01	No IUR	No IUR	3.1E-03		
75-00-3	Ethyl Chloride (Chloroethane)	2.9E+01	8.70E-01	No IUR	No IUR	2.0E-05		
100-41-4	Ethylbenzene	1.7E+03	5.01E+01	1.0E-05	1.0E-05	1.1E-02		
110-54-3	Hexane, n-	5.3E+04	1.58E+03	No IUR	No IUR	5.1E-01		
78-93-3	Methyl Ethyl Ketone (2-Butanone)	9.2E+01	2.78E+00	No IUR	No IUR	1.3E-04		
91-20-3	Naphthalene	2.3E+03	7.02E+01	1.9E-04	1.9E-04	5.3E+00		
115-07-1	Propylene	1.7E+03	5.19E+01	No IUR	No IUR	3.9E-03		
127-18-4	Tetrachloroethylene	5.7E+06	1.71E+05	3.6E-03	3.6E-03	9.7E+02		
108-88-3	Toluene	2.7E+02	8.04E+00	No IUR	No IUR	3.7E-04		
71-55-6	Trichloroethane, 1,1,1-	3.7E+01	1.11E+00	No IUR	No IUR	5.1E-05		
79-01-6	Trichloroethylene	1.5E+05	4.41E+03	1.5E-03	1.5E-03	5.0E+02		
95-63-6	Trimethylbenzene, 1,2,4-	4.1E+03	1.22E+02	No IUR	No IUR	4.0E+00		
75-01-4	Vinyl Chloride	5.4E+04	1.62E+03	5.8E-04	5.8E-04	3.7E+00		
95-47-6	Xylene, o-	1.5E+03	4.35E+01	No IUR	No IUR	9.9E-02		
1330-20-7	Xylenes	3.7E+03	1.11E+02	No IUR	No IUR	2.5E-01		

Notes:

- Inhalation Pathway Exposure Parameters (RME):**

Exposure Scenario
Averaging time for carcinogens (yrs)
Averaging time for non-carcinogens (yrs)
Exposure duration (yrs)
Exposure frequency (days/yr)
Exposure time (hr/day)

Units
(yrs)
(yrs)
(yrs)
(days/yr)
(hr/day)

Commercial
Symbol Value
ATc_C_SG 70
ATnc_C_SG 25
ED_C_SG 25
EF_C_SG 250
ET_C_SG 8

Residential
Symbol Value
ATc_R_SG 26
ATnc_R_SG 26
ED_R_SG 25
EF_R_SG 350
ET_R_SG 24

Selected (based on scenario)
Symbol Value
ATc_SG 70
ATnc_SG 25
ED_SG 25
EF_SG 250
ET_SG 8
- Generic Attenuation Factors:**

Source Medium of Vapors
Groundwater
Sub-Slab and Exterior Soil Gas

Formulas
Cia, target = MIN(Cia,c; Cia,nc)
Cia,c (ug/m³) = TCR x ATc x (365 days/yr) / (ED x EF x ET x IUR)
Cia,nc (ug/m³) = THQ x ATnc x (365 days/yr) / (ED x EF x ET)

Special Case Chemicals
Trichloroethylene

Commercial
Symbol Value
AFgw_C_SG 0.001
AFss_C_SG 0.03

Residential
Symbol Value
AFgw_R_SG 0.001
AFss_R_SG 0.03

Selected (based on scenario)
Symbol Value
AFgw_SG 0.001
AFss_SG 0.03
- Formulas**
Cia, target = MIN(Cia,c; Cia,nc)
Cia,c (ug/m³) = TCR x ATc x (365 days/yr) / (ED x EF x ET x IUR)
Cia,nc (ug/m³) = THQ x ATnc x (365 days/yr) / (ED x EF x ET)

Commercial
Symbol Value
AFgw_C_SG 0.001
AFss_C_SG 0.03

Residential
Symbol Value
AFgw_R_SG 0.001
AFss_R_SG 0.03

Selected (based on scenario)
Symbol Value
AFgw_SG 0.001
AFss_SG 0.03
- Formulas**
Cia, target = MIN(Cia,c; Cia,nc)
Cia,c (ug/m³) = TCR x ATc x (365 days/yr) / (ED x EF x ET x IUR)
Cia,nc (ug/m³) = THQ x ATnc x (365 days/yr) / (ED x EF x ET)

Commercial
Symbol Value
AFgw_C_SG 0.001
AFss_C_SG 0.03

Residential
Symbol Value
AFgw_R_SG 0.001
AFss_R_SG 0.03

Selected (based on scenario)
Symbol Value
AFgw_SG 0.001
AFss_SG 0.03

EPA-OLEM VAPOR INTRUSION ASSESSMENT

Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.5.1 (May 2016 RSLs)

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Commercial	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

Chestnut Street Property, Loveland, Ohio - maximum of all sampling locations

CAS	Chemical Name	Site Sub-slab or Exterior Soil Gas Concentration		Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard
		Csg (ug/m ³)	Cia (ug/m ³)		CR	HQ

Inhalation Unit Risk (ug/m ³) ⁻¹	IUR Source*	Reference Concentration RfC (mg/m ³)	RFC Source*	Mutagenic Indicator
				i

Mutagenic Chemicals

The exposure durations and age-dependent adjustment factors for mutagenic-mode-of-action are listed in the table below:

Age Cohort	Exposure Duration	Age-dependent adjustment factor
0 - 2 years	2	10
2 - 6 years	4	3
6 - 16 years	10	3
16 - 26 years	10	1

Note: This section applies to trichloroethylene and other mutagenic chemicals, but not to vinyl chloride.

Mutagenic-mode-of-action (MMOA) adjustment factor 25

This factor is used in the equations for mutagenic chemicals.

Vinyl Chloride

See the Navigation Guide equation for Cia.c for vinyl chloride.

Notation:

I = IRIS: EPA Integrated Risk Information System (IRIS). Available online at: <http://www.epa.gov/iris/subst/index.html>
P = PPRTV: EPA Provisional Peer Reviewed Toxicity Values (PPRTVs). Available online at: <http://www.atsdr.cdc.gov/pprtv.shtml>
A = Agency for Toxic Substances and Disease Registry (ATSDR) Minimum Risk Levels (MRLs). Available online at: <http://www.atsdr.cdc.gov/mrls/index.html>
CA = California Environmental Protection Agency/Office of Environmental Health Hazard Assessment assessments. Available online at: <http://www.oehha.ca.gov/risk/chemicaldb/index.asp>
H = HEAST: EPA Superfund Health Effects Assessment Summary Tables (HEAST) database. Available online at: <http://epa-heast.ornl.gov/heast.shtml>
S = See RSL User Guide, Section 5
X = PPRTV Appendix
Mut = Chemical acts according to the mutagenic-mode-of-action, special exposure parameters apply (see footnote (4) above).
VC = Special exposure equation for vinyl chloride applies (see Navigation Guide for equation).
TCE = Special mutagenic and non-mutagenic IURs for trichloroethylene apply (see footnote (4) above).
Yellow highlighting indicates site-specific parameters that may be edited by the user.
Blue highlighting indicates exposure factors that are based on Risk Assessment Guidance for Superfund (RAGS) or EPA vapor intrusion guidance, which generally should not be changed.
Pink highlighting indicates VI carcinogenic risk greater than the target risk for carcinogens (TCR) or VI Hazard greater than or equal to the target hazard quotient for non-carcinogens (THQ).

Cumulative Risk 6E-02 2E+03

EPA-OLEM VAPOR INTRUSION ASSESSMENT
Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.5.1 (May 2016 RSLs)

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Residential	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR_SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ_SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

Former Swan Cleaners, Mansfield, Ohio - maximum of all sampling locations

CAS	Chemical Name	Site Sub-slab or Exterior Soil Gas Concentration		Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard
		Csg (ug/m³)	Cia (ug/m³)			
67-64-1	Acetone	1.6E+02	4.65E+00	No IUR	CR	HQ
71-43-2	Benzene	2.1E+02	6.21E+00	1.7E-05		1.4E-04
100-44-7	Benzyl Chloride	7.4E+01	2.21E+00	3.8E-05		2.0E-01
106-99-0	Butadiene, 1,3-	2.9E+01	8.76E-01	9.4E-06		2.1E+00
75-15-0	Carbon Disulfide	8.3E+02	2.48E+01	No IUR		4.2E-01
56-23-5	Carbon Tetrachloride	2.6E+06	7.86E+04	1.7E-01		3.4E-02
67-66-3	Chloroform	2.0E+05	6.12E+03	5.0E-02		7.5E+02
74-87-3	Chloromethane	1.7E+00	5.01E-02	No IUR		6.0E+01
98-82-8	Cumene	1.0E+03	3.12E+01	No IUR		5.3E-04
110-82-7	Cyclohexane	3.3E+04	9.78E+02	No IUR		7.5E-02
75-71-8	Dichlorodifluoromethane	2.9E+00	8.61E-02	No IUR		1.6E-01
75-34-3	Dichloroethane, 1,1-	4.1E+01	1.22E+00	No IUR		8.3E-04
141-78-6	Diethyl Acetate	3.1E+01	1.08E+01	No IUR		No RfC
75-00-3	Ethyl Chloride (Chloroethane)	2.9E+01	9.42E-01	No IUR		5.2E-02
100-41-4	Ethylbenzene	1.7E+03	8.70E-01	No IUR		1.3E-02
110-54-3	Hexane, N-	5.3E+04	5.01E+01	4.5E-05		8.3E-05
78-93-3	Methyl Ethyl Ketone (2-Butanone)	9.2E+01	1.58E+03	No IUR		4.8E-02
91-20-3	Naphthalene	2.3E+03	2.76E+00	No IUR		2.2E+00
115-07-1	Propylene	1.7E+03	7.02E+01	8.5E-04		5.3E-04
127-18-4	Tetrachloroethylene	5.7E+06	5.19E+01	No IUR		2.2E+01
108-88-3	Toluene	2.7E+02	1.71E+05	1.6E-02		1.7E-02
71-55-6	Trichloroethane, 1,1,1-	3.7E+01	8.04E+00	No IUR		4.1E+03
79-01-6	Trichloroethylene	1.5E+05	1.11E+00	No IUR		1.5E-03
95-63-6	Trimethylbenzene, 1,2,4-	4.1E+03	4.41E+03	9.2E-03		2.1E-04
75-01-4	Vinyl Chloride	5.4E+04	1.22E+02	No IUR		2.1E+03
95-47-6	Xylene, o-	1.5E+03	1.62E+03	9.6E-03		1.6E+01
1330-20-7	Xylenes	3.7E+03	4.35E+01	No IUR		4.2E-01
			1.11E+02	No IUR		1.1E+00

Notes:

(1) Inhalation Pathway Exposure Parameters (RMEI):

Exposure Scenario	Units
Averaging time for carcinogens	(yrs)
Averaging time for non-carcinogens	(yrs)
Exposure duration	(yrs)
Exposure frequency	(days/yr)
Exposure time	(hr/day)

(2) Generic Attenuation Factors:

Source Medium of Vapors	Units
Groundwater	(-)
Sub-Slab and Exterior Soil Gas	(-)

(3) Formulas

Cia, target = MIN(Cia,c; Cia,nc)
Cia,c (ug/m3) = TCR x ATc x (365 days/yr) x (24 hrs/day) / (ED x EF x ET x IUR)
Cia,nc (ug/m3) = THQ x ATnc x (365 days/yr) x (24 hrs/day) x RfC x (1000 ug/mg) / (ED x EF x ET)

(4) Special Case Chemicals

Trichloroethylene

Inhalation Unit Risk	IUR Source*	Reference Concentration RfC	RfC	Mutagenic Indicator
(ug/m ³) ⁻¹		(mg/m ³)		i
7.80E-06	I	3.10E+01	A	
4.90E-05	CA	3.00E-02	I	
3.00E-05	I	1.00E-03	P	
6.00E-06	I	2.00E-03	I	
2.30E-05	I	7.00E-01	I	
	I	1.00E-01	I	
	I	9.80E-02	A	
	I	9.00E-02	I	
	I	4.00E-01	I	
	I	6.00E+00	I	
1.60E-06	CA	1.00E-01	X	
		2.00E-01	I	
		7.00E-02	P	
		1.00E+01	I	
2.50E-06	CA	1.00E+00	I	
		7.00E-01	I	
		5.00E+00	I	
3.40E-05	CA	3.00E-03	I	
	I	4.00E-02	CA	
2.60E-07		5.00E+00	I	
		5.00E+00	I	
see note	I	2.00E-03	I	TCE
		7.00E-03	P	
4.40E-06	I	1.00E-01	I	VC
		1.00E-01	S	
		1.00E-01	I	

Selected (based on scenario)

Commercial	Symbol	Value	Selected (based on scenario)	Symbol	Value
ATc_R_SG	ATc_R_SG	70	ATc_SG	ATc_SG	70
ATnc_R_SG	ATnc_R_SG	26	ATnc_SG	ATnc_SG	26
ED_R_SG	ED_R_SG	26	ED_SG	ED_SG	26
EF_R_SG	EF_R_SG	350	EF_SG	EF_SG	350
ET_R_SG	ET_R_SG	24	ET_SG	ET_SG	24

Selected (based on scenario)

Commercial	Symbol	Value	Selected (based on scenario)	Symbol	Value
AFgw_R_SG	AFgw_R_SG	0.001	AFgw_SG	AFgw_SG	0.001
AFss_R_SG	AFss_R_SG	0.03	AFss_SG	AFss_SG	0.03

Selected (based on scenario)

Commercial	Symbol	Value	Selected (based on scenario)	Symbol	Value
mIURTCR_R_SG	mIURTCR_R_SG	1.00E-06	mIURTCR_SG	mIURTCR_SG	1.00E-06
IURTCR_R_SG	IURTCR_R_SG	3.10E-06	IURTCR_SG	IURTCR_SG	3.10E-06

EPA-OLEM VAPOR INTRUSION ASSESSMENT
Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.5.1 (May 2016 RSLs)

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Residential	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR_SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ_SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

Former Swan Cleaners, Mansfield, Ohio - maximum of all sampling locations

CAS	Chemical Name	Site Sub-slab or Exterior Soil Gas Concentration		Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard
		Csg (ug/m ³)	Cia (ug/m ³)		CR	HQ

Inhalation Unit Risk IUR	IUR Source*	Reference Concentration RfC (mg/m ³)	RFC Source*	Mutagenic Indicator
(ug/m ³) ⁻¹				i

Mutagenic Chemicals

The exposure durations and age-dependent adjustment factors for mutagenic-mode-of-action are listed in the table below:

Age Cohort	Exposure Duration	Age-dependent adjustment factor
0 - 2 years	2	10
2 - 6 years	4	3
6 - 16 years	10	3
16 - 26 years	10	1

Note: This section applies to trichloroethylene and other mutagenic chemicals, but not to vinyl chloride.

Mutagenic-mode-of-action (MMOA) adjustment factor 72 This factor is used in the equations for mutagenic chemicals.

Vinyl Chloride

See the Navigation Guide equation for Cia.c for vinyl chloride.

Notation:

- I = IRIS: EPA Integrated Risk Information System (IRIS). Available online at: <http://www.epa.gov/iris/subst/index.html>
- P = PPRTV: EPA Provisional Peer Reviewed Toxicity Values (PPRTVs). Available online at: <http://hhprrtv.ornl.gov/pprtv.shtml>
- A = Agency for Toxic Substances and Disease Registry (ATSDR) Minimum Risk Levels (MRLs). Available online at: <http://www.atsdr.cdc.gov/mrls/index.html>
- CA = California Environmental Protection Agency/Office of Environmental Health Hazard Assessment assessments. Available online at: <http://www.oehha.ca.gov/risk/ChemicalDB/index.asp>
- H = HEAST. EPA Superfund Health Effects Assessment Summary Tables (HEAST) database. Available online at: <http://epa-heast.ornl.gov/heast.shtml>
- S = See RSL User Guide, Section 5
- X = PPRTV Appendix
- Mut = Chemical acts according to the mutagenic-mode-of-action, special exposure parameters apply (see footnote (4) above).
- VC = Special exposure equation for vinyl chloride applies (see Navigation Guide for equation).
- TCE = Special mutagenic and non-mutagenic IURs for trichloroethylene apply (see footnote (4) above).
- Yellow highlighting indicates site-specific parameters that may be edited by the user.
- Blue highlighting indicates exposure factors that are based on Risk Assessment Guidance for Superfund (RAGS) or EPA vapor intrusion guidance, which generally should not be changed.
- Pink highlighting indicates VI carcinogenic risk greater than the target risk for carcinogens (TCR) or VI Hazard greater than or equal to the target hazard quotient for non-carcinogens (THQ).

Cummulative Risk 3E-01 7E+03

EPA-OLEM VAPOR INTRUSION ASSESSMENT
Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.5.1 (May 2016 RSLs)

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Commercial	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TOR_SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ_SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

Chestnut Street Property, Loveland, Ohio - maximum of all sampling locations

CAS	Chemical Name	Site Sub-slab or Exterior Soil Gas Concentration Csg (ug/m ³)	Calculated Indoor Air Concentration Cia (ug/m ³)	VI Carcinogenic Risk CR	VI Hazard HQ
67-64-1	Acetone	2.6E+02	7.68E+00	No IUR	5.7E-05
71-43-2	Benzene	1.8E+01	5.37E-01	3.4E-07	4.1E-03
75-71-8	Dichlorodifluoromethane	3.1E+00	9.21E-02	No IUR	2.1E-04
78-93-3	Methyl Ethyl Ketone (2-Butanone)	7.7E+01	2.31E+00	No IUR	1.1E-04
127-18-4	Tetrachloroethylene	1.5E+05	4.59E+03	9.7E-05	2.6E+01
108-88-3	Toluene	3.1E+01	9.15E-01	No IUR	4.2E-05
71-55-6	Trichloroethane, 1,1,1-	3.6E+01	1.08E+00	No IUR	4.9E-05
79-01-6	Trichloroethylene	3.8E+03	1.13E+02	3.8E-05	1.3E+01
95-63-6	Trimethylbenzene, 1,2,4-	3.2E+01	9.72E-01	No IUR	3.2E-02
1330-20-7	Xylenes	2.3E+01	6.90E-01	No IUR	1.6E-03

Notes:

(1) Inhalation Pathway Exposure Parameters (RME):

Exposure Scenario	Units
Averaging time for carcinogens	(yrs)
Averaging time for non-carcinogens	(yrs)
Exposure duration	(yrs)
Exposure frequency	(days/yr)
Exposure time	(hr/day)

(2) Generic Attenuation Factors:

Source Medium of Vapors	Units
Groundwater	(-)
Sub-Slab and Exterior Soil Gas	(-)

(3) Formulas

Cia, target = MIN(Cia,c; Cia,nc)
Cia,c (ug/m³) = TOR x ATc x (365 days/yr) x (24 hrs/day) / (ED x EF x ET x IUR)
Cia,nc (ug/m³) = THQ x ATnc x (365 days/yr) x (24 hrs/day) x RFC x (1000 ug/mg) / (ED x EF x ET)

(4) Special Case Chemicals

Trichloroethylene

Mutagenic Chemicals

The exposure durations and age-dependent adjustment factors for mutagenic-mode-of-action are listed in the table below:

Age Cohort	Exposure Duration	Age-dependent adjustment factor
0 - 2 years	2	10
2 - 6 years	4	3
6 - 16 years	10	3
16 - 26 years	10	1

Mutagenic-mode-of-action (MMOA) adjustment factor 25

This factor is used in the equations for mutagenic chemicals.

Vinyl Chloride

See the Navigation Guide equation for Cia,c for vinyl chloride.

Notation:

I = IRIS: EPA Integrated Risk Information System (IRIS). Available online at: <http://www.epa.gov/iris/subst/index.html>
P = PPRTV: EPA Provisional Peer Reviewed Toxicity Values (PPRTVs). Available online at: <http://hhprrtv.ornl.gov/pprvv.shtml>
A = Agency for Toxic Substances and Disease Registry (ATSDR) Minimum Risk Levels (MRLs). Available online at: <http://www.atsdr.cdc.gov/mrls/index.html>

Commercial		Selected (based on scenario)	
Symbol	Value	Symbol	Value
ATc_R_SG	70	ATc_SG	70
ATnc_R_SG	26	ATnc_SG	25
ED_R_SG	26	ED_SG	25
EF_R_SG	350	EF_SG	250
ET_R_SG	24	ET_SG	8

Commercial		Selected (based on scenario)	
Symbol	Value	Symbol	Value
AFgw_R_SG	0.001	AFgw_SG	0.001
AFss_R_SG	0.03	AFss_SG	0.03

Commercial		Selected (based on scenario)	
Symbol	Value	Symbol	Value
mIURTC_R_SG	1.00E-06	mIURTC_SG	0.00E+00
IURTC_R_SG	3.10E-06	IURTC_SG	4.10E-06

EPA-OLEM VAPOR INTRUSION ASSESSMENT

Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.5.1 (May 2016 RSLs)

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Commercial	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

Chestnut Street Property, Loveland, Ohio - maximum of all sampling locations

CAS	Chemical Name	Site Sub-slab or Exterior Soil Gas Concentration		Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard
		Csg	Cia			
		(ug/m ³)	(ug/m ³)	(ug/m ³)	CR	HQ

CA = California Environmental Protection Agency/Office of Environmental Health Hazard Assessment assessments. Available online at:
H = HEAST. EPA Superfund Health Effects Assessment Summary Tables (HEAST) database. Available online at:
S = See RSL User Guide, Section 5
X = PPRTV Appendix

Mut = Chemical acts according to the mutagenic-mode-of-action, special exposure parameters apply (see footnote (4) above).
VC = Special exposure equation for vinyl chloride applies (see Navigation Guide for equation).

TCE = Special mutagenic and non-mutagenic IURs for trichloroethylene apply (see footnote (4) above).

Yellow highlighting indicates site-specific parameters that may be edited by the user.

Blue highlighting indicates exposure factors that are based on Risk Assessment Guidance for Superfund (RAGS) or EPA vapor intrusion guidance, which generally should not be changed.

Pink highlighting indicates VI carcinogenic risk greater than the target risk for carcinogens (TCR) or VI Hazard greater than or equal to the target hazard quotient for non-carcinogens (THQ).

Inhalation Unit Risk	IUR Source*	Reference Concentration	RfC Source*	Mutagenic Indicator
(ug/m ³) ⁻¹		(mg/m ³)		i

<http://www.epa.gov/heast/tables>
<http://www.oehha.ca.gov/risk/chemicalDB/index.asp>

Cummulative Risk 1E-04 4E+01

EPA-OLEM VAPOR INTRUSION ASSESSMENT

Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.5.1 (May 2016 RSLs)

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Residential	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR_SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ_SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

Former Swan Cleaners, Mansfield, Ohio - maximum of all sampling locations

CAS	Chemical Name	Site Sub-slab or Exterior Soil Gas Concentration		Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard
		Csg (ug/m ³)	Cia (ug/m ³)		CR	HQ
67-64-1	Acetone	2.6E+02	7.68E+00	No IUR	No IUR	2.4E-04
71-43-2	Benzene	1.8E+01	5.37E-01	1.5E-06	1.5E-06	1.7E-02
75-71-8	Dichlorodifluoromethane	3.1E+00	9.21E-02	No IUR	No IUR	8.8E-04
78-93-3	Methyl Ethyl Ketone (2-Butanone)	7.7E+01	2.31E+00	4.4E-04	No IUR	4.4E-04
127-18-4	Tetrachloroethylene	1.5E+05	4.59E+03	4.3E-04	4.3E-04	1.1E+02
108-88-3	Toluene	3.1E+01	9.15E-01	No IUR	No IUR	1.8E-04
71-55-6	Trichloroethane, 1,1,1-	3.6E+01	1.08E+00	No IUR	No IUR	2.1E-04
79-01-6	Trichloroethylene	3.8E+03	1.13E+02	2.4E-04	2.4E-04	5.4E+01
95-63-6	Trimethylbenzene, 1,2,4-	3.2E+01	9.72E-01	No IUR	No IUR	1.3E-01
1330-20-7	Xylenes	2.3E+01	6.90E-01	No IUR	No IUR	6.6E-03

Notes:

(1) Inhalation Pathway Exposure Parameters (RME):

Exposure Scenario	Units
Averaging time for carcinogens	(yrs)
Averaging time for non-carcinogens	(yrs)
Exposure duration	(yrs)
Exposure frequency	(days/yr)
Exposure time	(hr/day)

(2) Generic Attenuation Factors:

Source Medium of Vapors	Units
Groundwater	(-)
Sub-Slab and Exterior Soil Gas	(-)

(3) Formulas

Cia, target = MIN(Cia,c; Cia,nc)
Cia,c (ug/m³) = TCR x ATc x (365 days/yr) x (24 hrs/day) / (ED x EF x ET x IUR)
Cia,nc (ug/m³) = THQ x ATnc x (365 days/yr) x (24 hrs/day) x RIC x (1000 ug/mg) / (ED x EF x ET)

(4) Special Case Chemicals

Trichloroethylene

Mutagenic Chemicals

The exposure durations and age-dependent adjustment factors for mutagenic-mode-of-action are listed in the table below:

Note: This section applies to trichloroethylene and other mutagenic chemicals, but not to vinyl chloride.	Age Cohort	Exposure Duration	Age-dependent adjustment factor
	0 - 2 years	2	10
	2 - 6 years	4	3
	6 - 16 years	10	3
	16 - 26 years	10	1

Mutagenic-mode-of-action (MNOA) adjustment factor 72 This factor is used in the equations for mutagenic chemicals.

Vinyl Chloride

See the Navigation Guide equation for Cia,c for vinyl chloride.

Notation:

I = IRIS: EPA Integrated Risk Information System (IRIS). Available online at <http://www.epa.gov/iris/subs/index.html>
P = PPRTV: EPA Provisional Peer Reviewed Toxicity Values (PPRTVs). Available online at <http://hhprrtv.epa.gov/pprtv.shtml>
A = Agency for Toxic Substances and Disease Registry (ATSDR) Minimum Risk Levels (MRLs). Available online at <http://www.atsdr.cdc.gov/mrls/index.html>

Selected (based on scenario)

Commercial	Symbol	Value	Symbol	Value
ATc_R_SG	70	ATc_C_SG	70	ATc_SG
ATnc_R_SG	26	ATnc_C_SG	25	ATnc_SG
ED_R_SG	26	ED_C_SG	25	ED_SG
EF_R_SG	350	EF_C_SG	250	EF_SG
ET_R_SG	24	ET_C_SG	8	ET_SG

Selected (based on scenario)

Commercial	Symbol	Value	Symbol	Value
AFgw_R_SG	0.001	AFgw_C_SG	0.001	AFgw_SG
AFss_R_SG	0.03	AFss_C_SG	0.03	AFss_SG

Selected (based on scenario)

Commercial	Symbol	Value	Symbol	Value
mIURTCR_R_SG	1.00E-06	mIURTCR_C_SG	0.00E+00	mIURTCR_SG
mIURTCR_R_SG	3.10E-06	mIURTCR_C_SG	4.10E-06	mIURTCR_SG

EPA-OLEM VAPOR INTRUSION ASSESSMENT
Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.5.1 (May 2016 RSLs)

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Residential	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

Former Swan Cleaners, Mansfield, Ohio - maximum of all sampling locations

CAS	Chemical Name	Site Sub-slab or Exterior Soil Gas Concentration		Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard
		Csg (ug/m ³)	Cia (ug/m ³)		CR	HQ

CA = California Environmental Protection Agency/Office of Environmental Health Hazard Assessment assessments. Available online at:
H = HEAST, EPA Superfund Health Effects Assessment Summary Tables (HEAST) database. Available online at:

S = See RSL User Guide, Section 5

X = PPRTV Appendix

Mut = Chemical acts according to the mutagenic-mode-of-action, special exposure parameters apply (see footnote (4) above).

VC = Special exposure equation for vinyl chloride applies (see Navigation Guide for equation).

TCE = Special mutagenic and non-mutagenic IURs for trichloroethylene apply (see footnote (4) above).

Yellow highlighting indicates site-specific parameters that may be edited by the user

Blue highlighting indicates exposure factors that are based on Risk Assessment Guidance for Superfund (RAGS) or EPA vapor intrusion guidance, which generally should not be changed.

Pink highlighting indicates VI carcinogenic risk greater than the target risk for carcinogens (TCR) or VI Hazard greater than or equal to the target hazard quotient for non-carcinogens (THQ).

Inhalation Unit Risk (ug/m ³) ⁻¹	IUR Source*	Reference Concentration RFC (mg/m ³)	RFC Source*	Mutagenic Indicator

<http://www.epa-heast.ornl.gov/heast.shtml>
<http://www.oehha.ca.gov/risk/chemicalDB/index.asp>

Cummulative Risk 7E-04 2E+02

APPENDIX C
ACM SUMMARY TABLES AND FIGURES





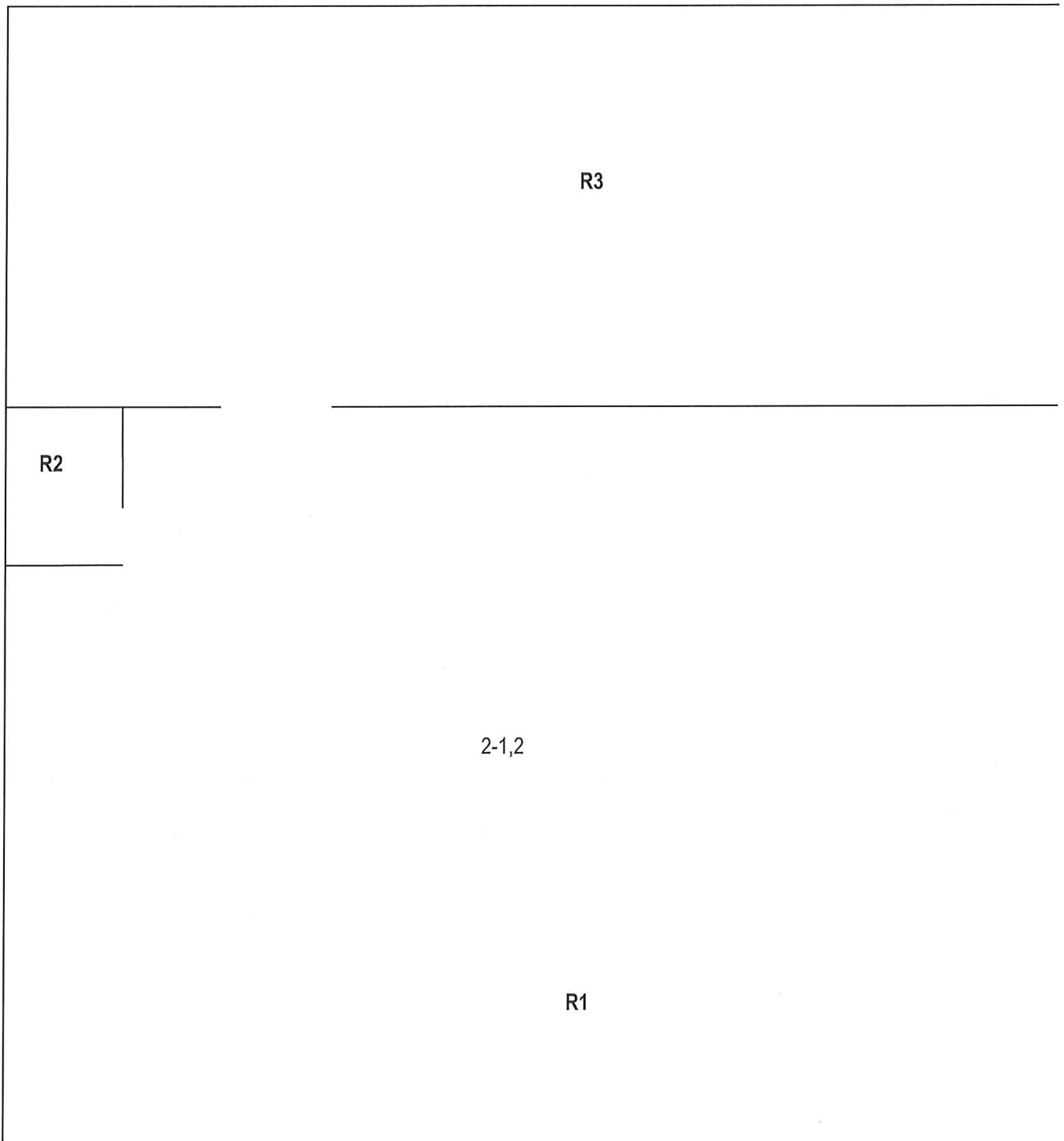
TECHNICAL SKILL.
CREATIVE SPIRIT.

1800 Indian Wood Circle, Maumee, Ohio 43537 Tel: 419.891.2222 Fax: 419.891.1595 www.MannikSm

Figure 1: Second Floor Sample Location Map

Address: 165 Park Avenue West, Mansfield, Ohio **Date:** September 7, 2018

Drawing not to scale





TECHNICAL SKILL.
CREATIVE SPIRIT.

1800 Indian Wood Circle, Maumee, Ohio 43537 Tel: 419.891.2222 Fax: 419.891.1595 www.MannikSm

Figure 2: First Floor Sample Location Map

Address: 165 Park Avenue West, Mansfield, Ohio **Date:** September 7, 2018

Drawing not to scale

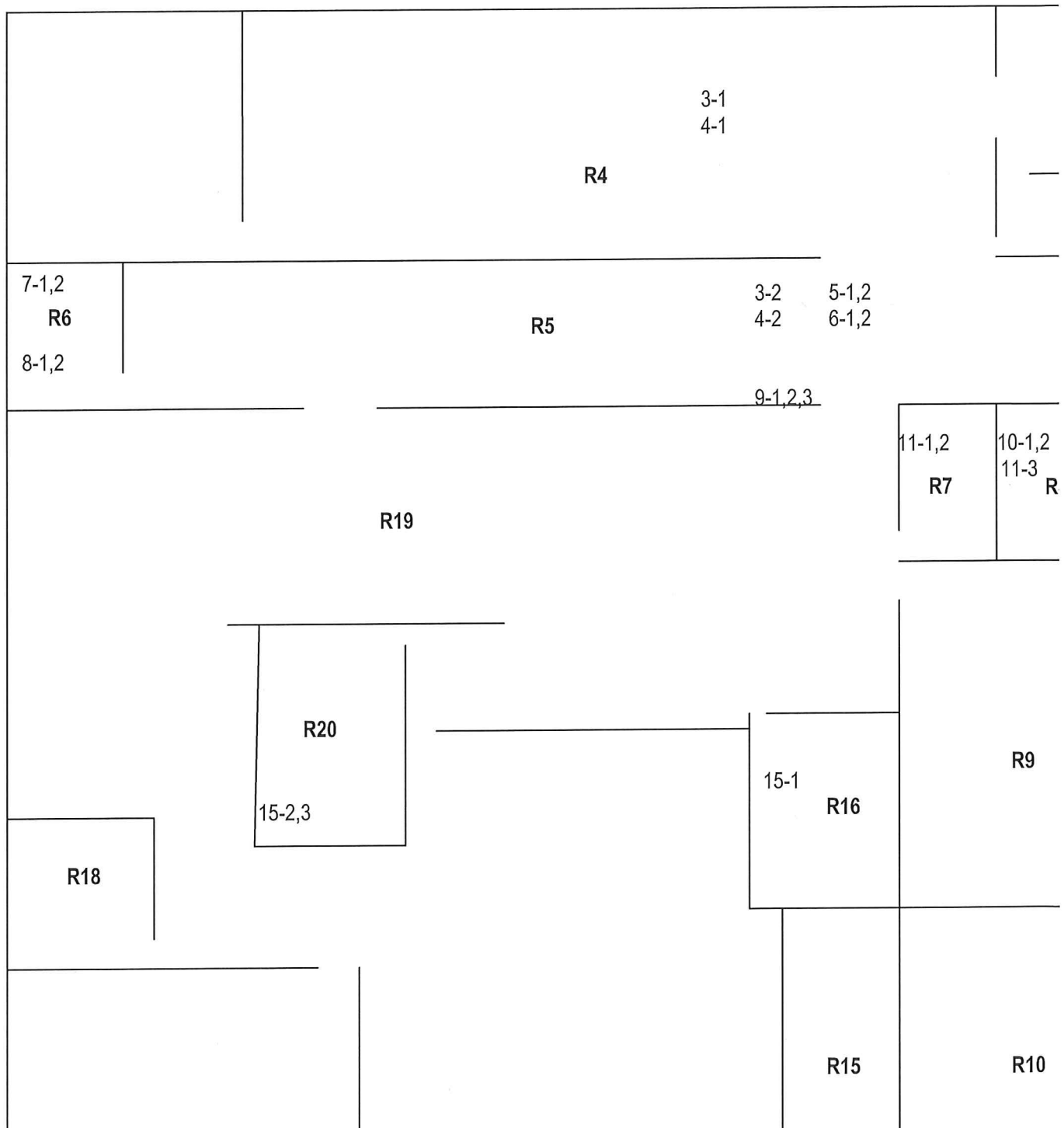


TABLE 1
Asbestos Sampling Results
165 Park Avenue West
Mansfield, Ohio

Survey Location		165 Park Avenue West, Mansfield, Ohio							
Survey Date		9/7/2018							
Functional Area	Rooms	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	Asbestos	Quantity
Second Floor	Room 1	1-1	1	Window glaze	Non Friable	Fair	Surfacing	2% Chrysotile	400 LF
Second Floor	Room 1	1-2	1	Window glaze	Non Friable	Fair	Surfacing	Stop Positive	
Second Floor	Room 1	1-3	1	Window glaze	Non Friable	Fair	Surfacing	Stop Positive	
Second Floor	Room 1	2-1	2	Check lino	Non Friable	Fair	Miscellaneous	Not Detected	None
Second Floor	Room 1	2-2	2	Check lino	Non Friable	Fair	Miscellaneous	Not Detected	
First Floor	Room 4	3-1	3	Cream swirl 12 x 12 FT	Non Friable	Fair	Miscellaneous	3% Chrysotile	1,500 SF
First Floor	Room 5	3-2	3	Cream swirl 12 x 12 FT	Non Friable	Fair	Miscellaneous	Stop Positive	
First Floor	Room 4	4-1	4	Red 8 x 8 FT	Non Friable	Fair	Miscellaneous	10% Chrysotile	1,200 SF
First Floor	Room 4	4-1	4	Red 8 x 8 FT Mastic	Non Friable	Fair	Miscellaneous	4% Chrysotile	
First Floor	Room 5	4-2	4	Red 8 x 8 FT	Non Friable	Fair	Miscellaneous	Stop Positive	
First Floor	Room 5	5-1	5	12 x 12 white pinhole ct	Non Friable	Fair	Miscellaneous	Not Detected	None
First Floor	Room 5	5-2	5	12 x 12 white pinhole ct	Non Friable	Fair	Miscellaneous	Not Detected	
First Floor	Room 5	6-1	6	Black underlay	Non Friable	Fair	Miscellaneous	Not Detected	None
First Floor	Room 5	6-2	6	Black underlay	Non Friable	Fair	Miscellaneous	Not Detected	
First Floor	Room 6	7-1	7	2 x 2 white swirl CT	Non Friable	Fair	Miscellaneous	Not Detected	None
First Floor	Room 6	7-2	7	2 x 2 white swirl CT	Non Friable	Fair	Miscellaneous	Not Detected	
First Floor	Room 6	8-1	8	Square pattern Lino	Non Friable	Fair	Miscellaneous	Not Detected	None
First Floor	Room 6	8-2	8	Square pattern Lino	Non Friable	Fair	Miscellaneous	Not Detected	
First Floor	Room 5	9-1	9	Plaster	Non Friable	Fair	Surfacing	Not Detected	None
First Floor	Room 5	9-2	9	Plaster	Non Friable	Fair	Surfacing	Not Detected	
First Floor	Room 5	9-3	9	Plaster	Non Friable	Fair	Surfacing	Not Detected	
First Floor	Room 8	10-1	10	Paneling	Non Friable	Fair	Miscellaneous	Not Detected	3,100 SF
First Floor	Room 8	10-1	10	Paneling Tar	Non Friable	Fair	Miscellaneous	6% Chrysotile	
First Floor	Room 8	10-2	10	Paneling	Non Friable	Fair	Miscellaneous	Stop Positive	
First Floor	Room 7	11-1	11	Wallboard	Non Friable	Fair	Miscellaneous	Not Detected	4,000 SF
First Floor	Room 7	11-1	11	Wallboard Tar	Non Friable	Fair	Miscellaneous	7% Chrysotile	
First Floor	Room 8	11-2	11	Wallboard	Non Friable	Fair	Miscellaneous	Stop Positive	
First Floor	Room 8	11-3	11	Wallboard	Non Friable	Fair	Miscellaneous	Stop Positive	
First Floor	Room 11	12-1	12	Beige base cove	Non Friable	Fair	Miscellaneous	Not Detected	None
First Floor	Room 11	12-2	12	Beige base cove	Non Friable	Fair	Miscellaneous	Not Detected	
First Floor	Room 12	13-1	13	Grey base cove	Non Friable	Fair	Miscellaneous	Not Detected	None
First Floor	Room 12	13-2	13	Grey base cove	Non Friable	Fair	Miscellaneous	Not Detected	
First Floor	Room 12	14-1	14	12x12 beige FT	Non Friable	Fair	Miscellaneous	Not Detected	None
First Floor	Room 12	14-2	14	12x12 beige FT	Non Friable	Fair	Miscellaneous	Not Detected	

TABLE 1
Asbestos Sampling Results
165 Park Avenue West
Mansfield, Ohio

Survey Location		165 Park Avenue West, Mansfield, Ohio							
Survey Date		9/7/2018							
Functional Area	Rooms	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	Asbestos	Quantity
First Floor	Room 16	15-1	15	Drywall	Non Friable	Fair	Miscellaneous	Not Detected	None
First Floor	Room 20	15-2	15	Drywall	Non Friable	Fair	Miscellaneous	Not Detected	
First Floor	Room 20	15-3	15	Drywall	Non Friable	Fair	Miscellaneous	Not Detected	
First Floor	Room 14	16-1	16	Window glaze	Non Friable	Fair	Surfacing	Not Detected	None
First Floor	Room 14	16-2	16	Window glaze	Non Friable	Fair	Surfacing	Not Detected	
First Floor	Room 14	16-3	16	Window glaze	Non Friable	Fair	Surfacing	Not Detected	
First Floor	Room 14	17-1	17	Pipe wrap	Non Friable	Fair	TSI	3% Amosite 20% Chrysotile	150 LF
First Floor	Room 14	17-2	17	Pipe wrap	Non Friable	Fair	TSI	Stop Positive	
First Floor	Room 17	17-3	17	Pipe wrap	Non Friable	Fair	TSI	Stop Positive	
Roof	Roof	18-1	18	White caulk	Non Friable	Fair	Surfacing	20% Chrysotile	360 LF
Roof	Roof	18-2	18	White caulk	Non Friable	Fair	Surfacing	Stop Positive	
Roof	Roof	18-3	18	White caulk	Non Friable	Fair	Surfacing	Stop Positive	
Roof	Roof	19-1	19	Black caulk	Non Friable	Fair	Surfacing	Not Detected	None
Roof	Roof	19-2	19	Black caulk	Non Friable	Fair	Surfacing	Not Detected	
Roof	Roof	19-3	19	Black caulk	Non Friable	Fair	Surfacing	Not Detected	
Roof	Roof	20-1	20	Roof 1 of 2	Non Friable	Fair	Miscellaneous	Not Detected	None
Roof	Roof	20-2	20	Roof 1 of 2	Non Friable	Fair	Miscellaneous	Not Detected	
Roof	Roof	21-1	21	Roof 2 of 2	Non Friable	Fair	Miscellaneous	Not Detected	
Roof	Roof	21-2	21	Roof 2 of 2	Non Friable	Fair	Miscellaneous	Not Detected	None
Exterior	Exterior	22-1	22	Ext caulk	Non Friable	Fair	Surfacing	Not Detected	
Exterior	Exterior	22-2	22	Ext caulk	Non Friable	Fair	Surfacing	Not Detected	
First Floor	Room 14	*	*	TSI Elbows	Friable	Fair	TSI	Assumed	4 EA
First Floor	Room 17	*	*	Boiler Door Gaskets	Friable	Fair	TSI	Assumed	4 EA
First Floor	*	*	*	Fire Doors	Non Friable	Fair	Miscellaneous	Assumed	3 EA

Notes

1 - See Figures for floors and rooms, and sample key.

2 - Condition of homogeneous material as defined by the EPA; Good: No Damage. Fair: Up to 10% distributed damage and/or upto 25% localized damage. Poor: Over 10% distributed damage and/or over 25% localized damage.

Additional Notes

LF - linear feet

SF - square feet

EA - Each



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EMSL Order: 081802179

Customer ID: MIDW50

Customer PO:

Project ID:

Attention: Haley Frager

The Mannik & Smith Group

1800 Indian Wood Circle

Maumee, OH 43537

Phone: (419) 891-2222

Fax: (419) 891-1595

Received Date: 09/10/2018 12:35 PM

Analysis Date: 09/12/2018 - 09/13/2018

Collected Date:

Project: ODAS0002-47

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
1-1 081802179-0001	Glazing	White/Red Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
1-2 081802179-0002	Glazing				Positive Stop (Not Analyzed)
1-3 081802179-0003	Glazing				Positive Stop (Not Analyzed)
2-1 081802179-0004	Linoleum	Brown/Gray/Various Fibrous Heterogeneous	25% Cellulose 10% Synthetic	65% Non-fibrous (Other)	None Detected
2-2 081802179-0005	Linoleum	Brown/Gray/Various Fibrous Heterogeneous	25% Cellulose 6% Synthetic	69% Non-fibrous (Other)	None Detected
3-1 081802179-0006	Floor Tile	Beige/Orange Non-Fibrous Homogeneous	3% Wollastonite	94% Non-fibrous (Other)	3% Chrysotile
3-1 081802179-0006A	Adhesive	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
3-2 081802179-0007	Floor Tile				Positive Stop (Not Analyzed)
3-2 081802179-0007A	Adhesive	Tan Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
4-1 081802179-0008	Floor Tile	Red Non-Fibrous Homogeneous		90% Non-fibrous (Other)	10% Chrysotile
4-1 081802179-0008A	Mastic	Black Non-Fibrous Homogeneous		96% Non-fibrous (Other)	4% Chrysotile
4-2 081802179-0009	Floor Tile				Positive Stop (Not Analyzed)
4-2 081802179-0009A	Mastic				Positive Stop (Not Analyzed)
5-1 081802179-0010	Coating	White Non-Fibrous Homogeneous	<1% Wollastonite	<1% Mica 100% Non-fibrous (Other)	None Detected
5-1 081802179-0010A	Ceiling Tile	Brown Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
5-2 081802179-0011	Coating	White Non-Fibrous Homogeneous	<1% Wollastonite	<1% Mica 100% Non-fibrous (Other)	None Detected

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EMSL Order: 081802179

Customer ID: MIDW50

Customer PO:

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
5-2 081802179-0011A	Ceiling Tile	Brown Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
6-1 081802179-0012	Underlay	Brown/Black Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
6-2 081802179-0013	Underlay	Brown/Black Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
7-1 081802179-0014	Ceiling Tile	Gray/White Fibrous Homogeneous	55% Cellulose 2% Min. Wool	30% Perlite 13% Non-fibrous (Other)	None Detected
7-2 081802179-0015	Ceiling Tile	Gray/White Fibrous Homogeneous	55% Cellulose 3% Min. Wool	30% Perlite 12% Non-fibrous (Other)	None Detected
8-1 081802179-0016	Linoleum	Gray/White/Beige Fibrous Heterogeneous	8% Glass	92% Non-fibrous (Other)	None Detected
8-2 081802179-0017	Linoleum	Gray/White Fibrous Heterogeneous	8% Glass	92% Non-fibrous (Other)	None Detected
8-2 081802179-0017A	Adhesive	Beige Non-Fibrous Homogeneous	2% Glass	98% Non-fibrous (Other)	None Detected
9-1 081802179-0018	Finish Coat	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
9-1 081802179-0018A	Base Coat	Gray Fibrous Homogeneous	<1% Cellulose	10% Quartz 90% Non-fibrous (Other)	None Detected
9-2 081802179-0019	Finish Coat	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
9-2 081802179-0019A	Base Coat	Gray Non-Fibrous Homogeneous	<1% Cellulose	8% Quartz 92% Non-fibrous (Other)	None Detected
9-3 081802179-0020 Inseparable Layers	Plaster	Gray/White Non-Fibrous Heterogeneous	<1% Cellulose	5% Quartz 95% Non-fibrous (Other)	None Detected
10-1 081802179-0021	Tar	Black Non-Fibrous Homogeneous		94% Non-fibrous (Other)	6% Chrysotile
10-1 081802179-0021A	Adhesive	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
10-1 081802179-0021B	Insulation	Tan Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected
10-2 081802179-0022	Tar				Positive Stop (Not Analyzed)
10-2 081802179-0022A	Adhesive	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
10-2 081802179-0022B	Insulation	Brown Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected

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Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
11-1 081802179-0023	Tar	Black Non-Fibrous Homogeneous		93% Non-fibrous (Other)	7% Chrysotile
11-1 081802179-0023A	Insulation	Brown Fibrous Homogeneous	35% Cellulose 60% Min. Wool	5% Non-fibrous (Other)	None Detected
11-2 081802179-0024	Tar				Positive Stop (Not Analyzed)
11-2 081802179-0024A	Insulation	Brown Fibrous Homogeneous	45% Cellulose 50% Min. Wool	5% Non-fibrous (Other)	None Detected
11-3 081802179-0025	Tar				Positive Stop (Not Analyzed)
11-3 081802179-0025A	Insulation	Brown/Black Fibrous Homogeneous	45% Cellulose 50% Min. Wool	5% Non-fibrous (Other)	None Detected
12-1 081802179-0026	Cove Base	Gray/Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
12-1 081802179-0026A	Adhesive/Paper	Brown/Yellow Fibrous Heterogeneous	20% Cellulose	80% Non-fibrous (Other)	None Detected
12-2 081802179-0027	Cove Base	Gray/Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
13-1 081802179-0028	Cove Base	Gray/Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
13-1 081802179-0028A	Adhesive	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
13-2 081802179-0029	Cove Base	Gray/Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
13-2 081802179-0029A	Adhesive	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
14-1 081802179-0030	Floor Tile	Gray/Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
14-1 081802179-0030A	Adhesive	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
14-2 081802179-0031	Floor Tile	Gray/Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
14-2 081802179-0031A	Adhesive	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
15-1 081802179-0032	Drywall	Brown/White Fibrous Heterogeneous	18% Cellulose	82% Non-fibrous (Other)	None Detected
15-2 081802179-0033	Drywall	Brown/White Fibrous Heterogeneous	12% Cellulose	88% Non-fibrous (Other)	None Detected

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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
15-3 081802179-0034	Drywall	Brown/Gray Fibrous Heterogeneous	7% Cellulose	93% Non-fibrous (Other)	None Detected
16-1 081802179-0035	Glazing	White/Rust Non-Fibrous Homogeneous	<1% Wollastonite	100% Non-fibrous (Other)	None Detected
16-2 081802179-0036	Glazing	White/Rust Non-Fibrous Homogeneous	<1% Wollastonite	100% Non-fibrous (Other)	None Detected
16-3 081802179-0037	Glazing	White/Black/Rust Non-Fibrous Homogeneous	2% Wollastonite	98% Non-fibrous (Other)	None Detected
17-1 081802179-0038 Wrap not cleanly separable	Pipe Wrap	White Fibrous Homogeneous		77% Non-fibrous (Other)	3% Amosite 20% Chrysotile
17-2 081802179-0039 Wrap not cleanly separable	Pipe Wrap				Positive Stop (Not Analyzed)
17-3 081802179-0040 Wrap not cleanly separable	Pipe Wrap				Positive Stop (Not Analyzed)
18-1 081802179-0041	Caulk	Brown/Gray Non-Fibrous Homogeneous		80% Non-fibrous (Other)	20% Chrysotile
18-2 081802179-0042	Caulk				Positive Stop (Not Analyzed)
18-3 081802179-0043	Caulk				Positive Stop (Not Analyzed)
19-1 081802179-0044	Silver Paint	Gray/Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	<1% Chrysotile
19-1 081802179-0044A	Rubber	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19-2 081802179-0045 Material insufficient for further (point count) analysis	Silver Paint	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	<1% Chrysotile
19-2 081802179-0045A	Rubber	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19-3 081802179-0046	Silver Paint	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	<1% Chrysotile
19-3 081802179-0046A	Rubber	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
20-1 081802179-0047	Roof	White/Black Fibrous Heterogeneous	40% Synthetic	60% Non-fibrous (Other)	None Detected
20-2 081802179-0048	Roof	White/Black Fibrous Heterogeneous	35% Synthetic	65% Non-fibrous (Other)	None Detected

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Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
21-1 <i>081802179-0049</i>	Tar Paper	Brown/Black Fibrous Homogeneous	50% Cellulose 25% Glass	25% Non-fibrous (Other)	None Detected
21-1 <i>081802179-0049A</i>	Foam	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
21-2 <i>081802179-0050</i>	Tar Paper	Brown/Black Non-Fibrous Homogeneous	50% Cellulose 30% Glass	20% Non-fibrous (Other)	None Detected
21-2 <i>081802179-0050A</i>	Foam	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
22-1 <i>081802179-0051</i>	Caulk	Brown/Gray/Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
22-2 <i>081802179-0052</i>	Caulk	Brown/Gray/Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s)

Rebecca Newman (25)

Ryan Shannon (41)


Ryan Shannon, Laboratory Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method"), but augmented with procedures outlined in the 1993 ("final") version of the method. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. All samples received in acceptable condition unless otherwise noted. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. EMSL recommends gravimetric reduction for all non-friable organically bound materials prior to analysis. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Ann Arbor, MI NVLAP Lab Code 101048-4

Initial report from: 09/14/2018 09:44:16



EMSL Analytical, Inc.

212 South Wagner Road Ann Arbor, MI 48103

Phone/Fax: (734) 668-6810 / (734) 668-8532

<http://www.EMSL.com> / annarborlab@emsl.com

EMSL Order: 081802179

Customer ID: MIDW50

Customer PO:

Project ID:

Attention: Haley Frager
The Mannik & Smith Group
1800 Indian Wood Circle
Maumee, OH 43537

Phone: (419) 891-2222

Fax: (419) 891-1595

Received: 09/10/2018 12:35 PM

Analysis Date: 09/12/2018 - 09/13/2018

Collected:

Project: ODAS0002-47

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy. Quantitation using 400 Point Count Procedure

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
19-1 081802179-0044	Silver Paint	Gray Non-Fibrous Homogeneous		99.75% Non-fibrous (Other)	0.25% Chrysotile
19-3 081802179-0046	Silver Paint	Silver Non-Fibrous Homogeneous		99.25% Non-fibrous (Other)	0.75% Chrysotile

Analyst(s)

Rebecca Newman (1)

Ryan Shannon (1)

Ryan Shannon, Laboratory Manager
or other approved signatory

Disclaimer: Some samples may contain asbestos fibers present in dimensions below PLM resolution limits. The limit of detection as stated in the method is 0.25%. EMSL Analytical Inc suggests that samples reported as <0.25% or none detected undergo additional analysis via TEM. The above test report relates only to the items tested. This report may not be reproduced, except in full, without written approval of EMSL Analytical Inc. This test report must not be used by the client to claim product endorsement by NVLAP or any agency of the United States Government. EMSL Analytical Inc., bears no responsibility for sample collection activities, analytical method limitations, or the accuracy of results when requested to separate layered samples. EMSL Analytical Inc., liability is limited to the cost of sample analysis. The test results contained within this report meet the requirements of NELAC unless otherwise noted. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample.

Samples analyzed by EMSL Analytical, Inc. Ann Arbor, MI

Initial report from: 09/14/2018 09:44:14

081802179

HroweD MannikSmith group inc

Company : The Mannik & Smith Group		EMSL-Bill to: Same Di	
Street: 1800 Indian Wood Circle		If Bill to is Different note instructions in Cr	
City:Maumee	State/Province:OH	Zip/Postal Code:43537	Country:USA
Report To (Name):Haley Frager		Telephone #:4198912222	
Email Address:1800 Indian Wood Circle		Fax #:	Purchase Ord
Project Name/Number:ODAS0002-47		Please Provide Results:	Fax Email: <u>✓</u>
U.S. State Samples Taken:OH		CT Samples:	Commercial/Taxable Residential
Turnaround Time (TAT) Options* - Please Check			
3 Hour	6 Hour	24 Hour	48 Hour 72 Hour 96 Hour <u>1 Week</u>

*For TEM Air 3 hr through 6 hr, please call ahead to schedule.*There is a premium charge for 3 Hour TEM AHERA or EPA Level II on authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the

PLM - Bulk (reporting limit)	TEM - Bulk
PLM EPA 600/R-93/116 (<1%) <u>X</u>	TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
PLM EPA NOB (<1%)	NY ELAP Method 198.4 (TEM)
Point Count 400 (<0.25%) 1000 (<0.1%)	Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric 400 (<0.25%) 1000 (<0.1%)	TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
NIOSH 9002 (<1%)	TEM Qualitative via Filtration Prep Technique
NY ELAP Method 198.1 (friable in NY)	TEM Qualitative via Drop Mount Prep Technique
NY ELAP Method 198.6 NOB (non-friable-NY)	Other
OSHA ID-191 Modified	
Standard Addition Method	Point Count is <1%

Check For Positive Stop - Clearly Identify Homogenous Group	Date Sampled: 9/7/18
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Samplers Name: <u>Haley Frager</u>	Samplers Signature: <u>[Signature]</u>
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Sample #	HA #	Sample Location	Material Description
1-1	1	Room 1	Window Glaze
1-2	1	Room 1	Window Glaze
1-3	1	Room 1	Window Glaze
2-1	2	Room 1	Check Lino
2-2	2	Room 1	Check Lino
3-1	3	Room 4	Cream swirl 12 x 12 FT
3-2	3	Room 5	Cream swirl 12 x 12 FT
4-1	4	Room 4	Red 8 x 8 FT
4-2	4	Room 5	Red 8 x 8 FT
5-1	5	Room 5	12 x 12 white pinhole ct

Client Sample # (s): 1-1 - 22-1	Total # of Samples:
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Relinquished (Client): <u>[Signature]</u>	Date: 9/7/18	Time: 1500
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Received (Lab): <u>RN UPS</u>	Date: 9/10/18	Time: 12:35
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Comments/Special Instructions:

Sample #	HA #	Sample Location	Material Description
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0885809
75

5-2	5	Room 5	12 x 12 white pinhole ct
6-1	6	Room 5	Black underlay
6-2	6	Room 5	Black underlay
7-1	7	Room 6	2 x 2 white swirl CT
7-2	7	Room 6	2 x 2 white swirl CT
8-1	8	Room 6	Square pattern Lino
8-2	8	Room 6	Square pattern Lino
9-1	9	Room 5	Plaster
9-2	9	Room 5	Plaster
9-3	9	Room 5	Plaster
10-1	10	Room 8	Paneling
10-2	10	Room 8	Paneling
11-1	11	Room 7	Wallboard
11-2	11	Room 8	Wallboard
11-3	11	Room 8	Wallboard
12-1	12	Room 11	Beige base cove
12-2	12	Room 11	Beige base cove
13-1	13	Room 12	Grey base cove
13-2	13	Room 12	Grey base cove
14-1	14	Room 12	12x12 beige ft
14-2	14	Room 12	12x12 beige ft
15-1	15	Room	Drywall
15-2	15	Room	Drywall
15-3	15	Room	Drywall

*Comments/Special Instructions:

Page 2 of 3 pages

Controlled Document - Asbestos COC - R8 - 11/29/2012

RN ups

7/10/18 12:35

Material

Location

16-1	Window Glaze	
16-2	Window Glaze	
16-3	Window Glaze	
17-1	Pipe wrap	R-14
17-2	Pipe wrap	R-14
17-3	pipe wrap	R-14
18-1	White Caulk	Roof
18-2	White Caulk	Roof
18-3	White Black Caulk	Roof
19-1	Black Caulk	Roof
19-2	Black Caulk	Roof
19-3	Black Caulk	Roof
20-1	Roof 1 of 2	Roof
20-2	Roof 2 of 2	Roof
21-1	Roof 2 of 2	Roof
21-2	Roof 2 of 2	Roof
22-1	Ext Caulk	Ext
22-2	Ext Caulk	Ext.

*Comments/Special Instructions:

Page 3 of 3 pages

Controlled Document - Asbestos COC - R6 - 11/29/2012

RN ups 9/10/18 12:35

081802179

Shannon, Ryan

From: Haley Rowe <HRowe@manniksmithgroup.com>
Sent: Monday, September 10, 2018 3:01 PM
To: Shannon, Ryan
Subject: RE: ODAS0002-47

Yeah, I'm sorry about that COC, it was not great. Please add positive stop and point count if less than 1%. Thanks for asking! I was trying to get home for an emergency and things got crazy-
Haley

From: Shannon, Ryan [<mailto:rshannon@EMSL.com>]
Sent: Monday, September 10, 2018 2:59 PM
To: Haley Rowe
Subject: ODAS0002-47

Haley,

Checking if you wanted positive stop or not on the above. It's not indicated, but I suspect that's just because of the weird pagination.



Ryan Shannon | Laboratory Manager

EMSL Analytical, Inc. | 212 South Wagner Road | Ann Arbor, MI 48103

Phone: 734-668-6810 | Fax: 734-668-8532 | Toll Free: 866-736-4824

Lab Hours: Monday - Friday 8AM - 6PM, Saturday-Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:

[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

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*****EMSL Ann Arbor is now accepting legionella and sewage presence/absence samples for analysis*****

CONFIDENTIALITY NOTICE

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Customer: RICHLAND CO. LAND REUTILIZATIO
Address: 50 PARK AVE E
 MANSFIELD OH 44902 USA
Acct. #: MCO-M880359
Phone: 4197745623
Email: efrasz@richlandcountyoh.us
Payor: RICHLAND CO. LAND REUTILIZA
Ordered By: Amy Hamrick

OrderStart Date: 01/09/2019

Order End Date: 01/09/2019

PO #

Tear SheetsAffidavitsBlind BoxPromo TypeMaterialsSpecial Pricing

0

1

Net AmountTax AmountTotal AmountPayment MethodPayment AmountAmount Due

\$169.85

\$0.00

\$169.85

Invoice

\$0.00

\$169.85

Ad Order Notes:

Sales Rep: eduffy

Order Taker: eduffy

Product	# Ins	Start Date	End Date	Placement	Position
MCO-Man-Mansfield News Journal	1	01/09/2019	01/09/2019	MCO-Legals	Legal Notices
MCO-Man-Mansfield Online	1	01/09/2019	01/09/2019	MCOW-Legals	Legal Notices

Text of Ad:

PUBLIC NOTICE
EPA BROWNFIELDS CLEANUP
GRANT PROPOSAL
RICHLAND COUNTY LAND REUTI-
LIZATION CORPORATION

The Richland County Land Reutilization Corporation (Land Bank) is applying for up to \$500,000.00 Brownfield Cleanup Grant from the United States Environmental Protection Agency for activities associated with the remediation of the former Swan Cleaners facility located at 165 Park Avenue West, Mansfield, Ohio.

As part of the application process, the Land Bank is required to obtain public input to their proposal, which is due January 31, 2019. Starting January 16, 2019, copy of the grant proposal, including the draft ABCA will be available for public review on the Land Banks website (www.richlandcountylandbank.org) and in the Land Bank office located 50 Park Avenue East, Mansfield, Ohio, Lower Level 1. The Land Bank will also discuss the draft proposal and consider response comments at a public meeting on January 16, 2019 at 1:00 pm in the Land Bank office located 50 Park Avenue East, Mansfield, Ohio, Lower Level 1. The Land Bank will consider and respond to and/or incorporate all substantial written comments provided by January 19, 2019. Written comments should be directed by email to ahamrick@richlandcountyoh.us or by US Mail to Amy Hamrick, Land Bank Manager, 50 Park Avenue East, Mansfield, Ohio 44902. MNJ, Jan9, '19#3328227

PUBLIC COMMENTS RECEIVED AND LAND BANK'S RESPONSE

Prior to Public Meeting January 11, 2019

Phone Question/Conversation from Ace Auto

They were concerned about parking, currently Ace Auto is using parking located in front of Swan Cleaners. They expressed concern about the end user (Little Buckeye Children's Museum) needing more parking than what is currently available with Swan Cleaners. Lack of parking has been an issue for years. Ace Auto wanted assurance that the Museums clients won't be parking on Ace Auto property.

Land Bank's Answer

Amy Hamrick from Land Bank and Fred Bolls from Little Buckeye Children's Museum met with owners of Ace Auto on site to discuss parking issues. One of the first things the Land Bank will do; remove Swan Cleaner sign from parking lot to make parking on site safer. Fred Bolls from Museum indicated he wishes to work with either of the adjacent property owners (Ace Auto or Herlihy Chambers Funeral Home) to utilize undeveloped space behind the businesses to create additional parking that would be shared by both parties.

Prior to Public Meeting January 14, 2019

Phone Question/ Conversation Karen Manning

Ms. Manning called to ask about her missing custom made wedding dress. She asked if we would allow her to look through the remaining items to see if she could find her dress from 18 years ago.

Land Bank's Answer

We informed Ms. Manning that we are aware of personal items still hanging in the windows and on racks throughout the structure. After we take ownership we are going to let the public know how and when they can come and pick up their items.

Public Meeting January 16, 2019

Question/ Conversation

Ms. Hoffer asked if funds have already been secured for the "Imagination District" or is the Co-Op still in the campaigning stages for the funds.

Land Bank's / Museum's Answer

Mr. Boll explained campaigning is in the private stages, however they plan to publically campaign starting May of 2019. He also briefly discussed the upcoming demolition of the vacant structure located between the Historic Renaissance Theatre and the new partially renovated Theatre 166.

Question/ Conversation

Ms. Kennedy asked if existing equipment will be salvaged for use by the Museum such as the hoist

Land Bank's / Museum's Answer

Mrs. Hamrick commented that Land Bank will have to remove all existing materials so that cleanup of contaminants can be performed. Land Bank has a plan for the recycling of materials but plan is not definite at this point.



Richland County Land Bank

Court House, Lower Level One
50 Park Avenue East
Mansfield, Ohio 44902
419-774-5623

2018(FY19) US EPA Swan Cleaners Grant Proposal Public Meeting January 16, 2019 1:00 pm

Present:

Bart Hamilton, Richland County Land Bank
Chairman of the Board / County Treasurer
Jeff Parton, Richland County Land Bank
Vice-Chairman of the Board / Richland Bank
Amy Hamrick, Richland County Land Bank Manager
Fred Boll, Little Buckeye Children's Museum
Executive Director
Larry Smith, Mannik and Smith Senior Project Manager

Amanda Hike, Richland County Land Bank
Greg Weigler, Richland County Land Bank
Matt Finfgeld, Richland County Chief Deputy Treasurer
Marc Milliron, City of Mansfield Codes and Permits
Manager
Tabitha Payne Kennedy, Danger City Metal Works
Victoria Hoffer, Think-Ability

Mr. Hamilton convened the meeting at 1:00 pm on January 16, 2019.

Mrs. Hamrick gave brief description of Site proposed to US EPA for Brownfield Cleanup Funds; Swan Cleaners located at 165 Park Avenue West, Mansfield operated as a dry cleaner from 1946 until they closed their doors in 2014. After Swan Cleaners closed their doors property was abandoned and has been vacant since. Proposal involves cleanup of Swan Cleaners for proposed use by Buckeye Children's Museum, and for building to be incorporated into the "Imagination District".

Mr. Smith explained funds for US EPA grants are available once a year for cleanup of Brownfield Sites. US EPA Grants are for redevelopment projects with an environmental component for communities that have the need for funding.

Mrs. Hamrick showed 5 minute video showing the Renaissance Theatre's rehab of 166 Park Avenue West (directly across the street from Swan Cleaners) dubbed Theatre 166, ending with a visual of what the "Imagination District" is imagined to look like by 2021.

Mr. Boll discussed partnership between Little Buckeye Children's Museum and The Renaissance Theatre. Both non-profits have formed a CO-OP fund raising relationship. It is a unique model where two non-profits have come together for a capital campaign and when finished they will remain their own self-funded organization. It has been dubbed the "Mansfield Model" across the country. The Imagination District will envelop a two block corridor of Park Avenue West. The Museum will have a ribbon cutting ceremony in 2021 where attendance level is anticipated to be 110,000 and will grow in five years to an estimated 220,000. Currently 36% of Buckeye Children's Museum's guests travel an hour to an hour and a half to attend the Museum. The CO-OP partnership will invest \$6 Million

Dollars into downtown Mansfield not including the anticipated rehab of the Swan Cleaners building. They plan to develop Swan Cleaners building to contain up to 2 retail spaces on the bottom floor, a practice studio for dance, possibly another studio for practicing plays, apartment space for out of town performers, storage space, and space for building sets. Ms. Hoffer asked if funds have already been secured for the "Imagination District" or is the Co-Op still in the campaigning stages for the funds. Mr. Boll explained campaigning is in the private stages, however they plan to publically campaign starting May of 2019. Mr. Boll also briefly discussed the upcoming demolition of the vacant structure located between the Historic Renaissance Theatre and the new partially renovated Theatre 166.

Ms. Kennedy asked if existing equipment will be salvaged for use by the Museum such as the hoist. Mrs. Hamrick commented that Land Bank will have to remove all existing materials so that cleanup of contaminants can be performed. Land Bank has a plan for the recycling of materials but plan is not definite at this point.

Mr. Smith explained results of Phase I and Phase II reports. The Phase I report is basically a historical report of the property. In 2001 the neighbor of Swan Cleaners, Ace Auto, had environmental testing done and results showed impact to the soil, however the levels were below EPA's Action Levels. Now looking at Swan Cleaners, the main source of contamination, an investigation was done in October, December 2018, and January 2019 on the property. Soil, soil vapor, and indoor air samples were collected in Phase II process. In order to rehabilitate building Land Bank must understand what hazards are present that need to be addressed. Testing did show that levels in soil were above the EPA standards. Indoor air levels were above EPA's residential standards. Now Land Bank must do an Analysis of Brownfield Cleanup Alternatives (ABCA).

Mr. Smith discussed alternatives and cleanup plan. There are three alternatives to address Swan Cleaners. (1) Do nothing and take no action to cleanup building. (2) Abate asbestos, demolish building, and cleanup soil around building and underneath. ABCA report shows the cost for this alternative would be in excess of \$600, 000.00. This would leave the museum without a building and would be the most expensive alternative. (3) The recommended alternative would be to keep the building, do an asbestos abatement, cleanup soil behind building, and to treat air inside of building with a vapor mitigation system. The recommended alternative meets EPA standards and is the cheaper option. Vapor mitigation system could be compared to a residential radon mitigation system. Essentially it is taking vapors escaping through the cracks into the building and forcing the vapors up and out through the roof of the building. The cost for the recommended alternative would be an estimated \$408, 000.00. Mr. Smith asked all in attendance if there were any questions he could answer. No response.

Mrs. Hamrick stated that Swan Cleaners will be discussed at future Board Meetings. Schedule was provided for all in attendance. Also Mrs. Hamrick provided email address for questions and comments pertaining to Swan Cleaners.

Mr. Hamilton adjourned meeting at 1:32 pm.

Next Board Meeting January 23, 2019 at 1:00 pm in Land Bank Office.



Richland County Land Reutilization Corporation

50 Park Avenue East
Mansfield, Ohio 44902
419-774-5623

January 16, 2019 @ 1:00 pm

US EPA Swan Cleaners Cleanup Grant Public Meeting

PRINTED NAME

REPRESENTING

EMAIL

Chris Hamrick

Fred Boll

Littlebuckeye

f.boll@littlebuckeye.org

Larry Smith

Mannick Smith

lsmith@mannicksmithgroup.com

Bart Hamilton

Richland County Land Bank

bhamilton@richlandcountyoh.us

Amanda Chike

Richland County Land Bank

achike@richlandcountyoh.us

Greg Weigler

Richland County Land Bank

Jeff Derosier

RLRC

jderosier@richlandbank.com

Matt Finfgeld

Treasurer

Marc Morrison

City of Mansfield

Tabitha Pappal Kennedy

Danger City Metalworks

paynet@danger.com

Victoria Hoff

Think-ability

victoria332@gmail.com

Application for Federal Assistance SF-424

*** 1. Type of Submission:**

- ☐ Preapplication
☒ Application
☐ Changed/Corrected Application

*** 2. Type of Application:**

- ☒ New
☐ Continuation
☐ Revision

*** If Revision, select appropriate letter(s):**

*** Other (Specify):**

*** 3. Date Received:**

01/30/2019

4. Applicant Identifier:

5a. Federal Entity Identifier:

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

*** a. Legal Name:** Richland County Land Reutilization Corporation

*** b. Employer/Taxpayer Identification Number (EIN/TIN):**

*** c. Organizational DUNS:**

1169296560000

d. Address:

*** Street1:** 50 Park Avenue East

Street2:

*** City:** Mansfield

County/Parish:

Richland

*** State:**

OH: Ohio

Province:

*** Country:**

USA: UNITED STATES

*** Zip / Postal Code:** 44902-1861

e. Organizational Unit:

Department Name:

Division Name:

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:

Mrs.

*** First Name:**

Amy

Middle Name:

*** Last Name:** Hamrick

Suffix:

Title: Manager

Organizational Affiliation:

Richland County Land Reutilization Corporation

*** Telephone Number:** 4197745623

Fax Number:

*** Email:** ahamrick@richlandcountyoh.us

Application for Federal Assistance SF-424

* 9. Type of Applicant 1: Select Applicant Type:

M: Nonprofit with 501C3 IRS Status (Other than Institution of Higher Education)

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

* 10. Name of Federal Agency:

Environmental Protection Agency

11. Catalog of Federal Domestic Assistance Number:

66.818

CFDA Title:

Brownfields Assessment and Cleanup Cooperative Agreements

* 12. Funding Opportunity Number:

EPA-OLEM-OBLR-18-07

* Title:

FY19 GUIDELINES FOR BROWNFIELDS CLEANUP GRANTS

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

Add Attachment

Delete Attachment

View Attachment

* 15. Descriptive Title of Applicant's Project:

Site specific environmental cleanup of dry cleaner (Swan Cleaners) for rehabilitation and renovation.

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

Application for Federal Assistance SF-424**16. Congressional Districts Of:**

* a. Applicant

12

* b. Program/Project

12

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment

Delete Attachment

View Attachment

17. Proposed Project:

* a. Start Date:

10/01/2019

* b. End Date:

09/30/2022

18. Estimated Funding (\$):

* a. Federal	411,000.00
* b. Applicant	85,000.00
* c. State	0.00
* d. Local	0.00
* e. Other	0.00
* f. Program Income	0.00
* g. TOTAL	496,000.00

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**☐ a. This application was made available to the State under the Executive Order 12372 Process for review on .☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.☒ c. Program is not covered by E.O. 12372.*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**☐ Yes☒ No

If "Yes", provide explanation and attach

Add Attachment

Delete Attachment

View Attachment

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix:

Mrs.

* First Name:

Amy

Middle Name:

* Last Name:

Hamrick

Suffix:

* Title:

Manager

* Telephone Number:

4197745623

Fax Number:

* Email:

ahamrick@richlandcountyo.h.us

* Signature of Authorized Representative:

Amy M Hamrick

* Date Signed:

01/30/2019